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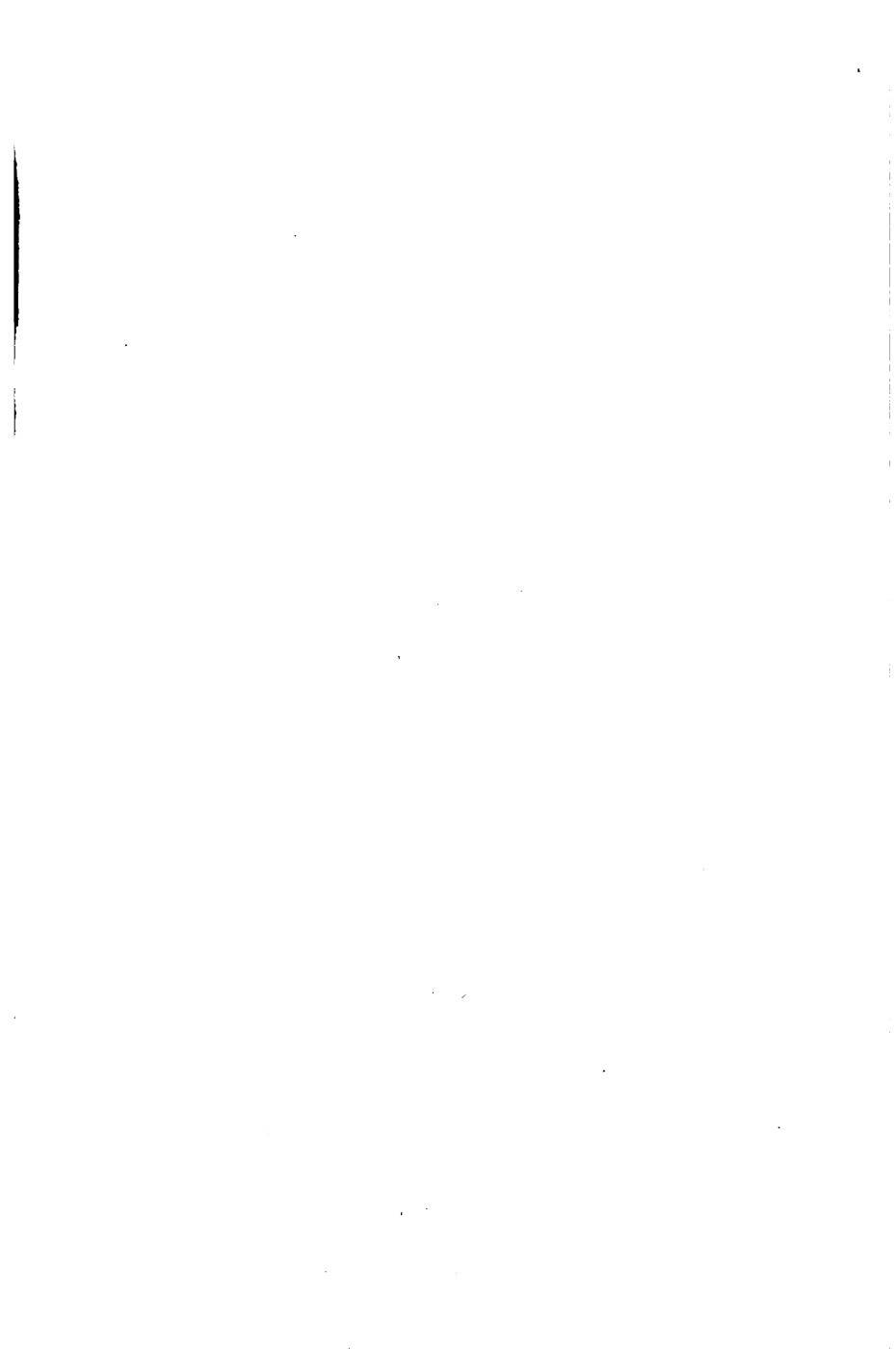
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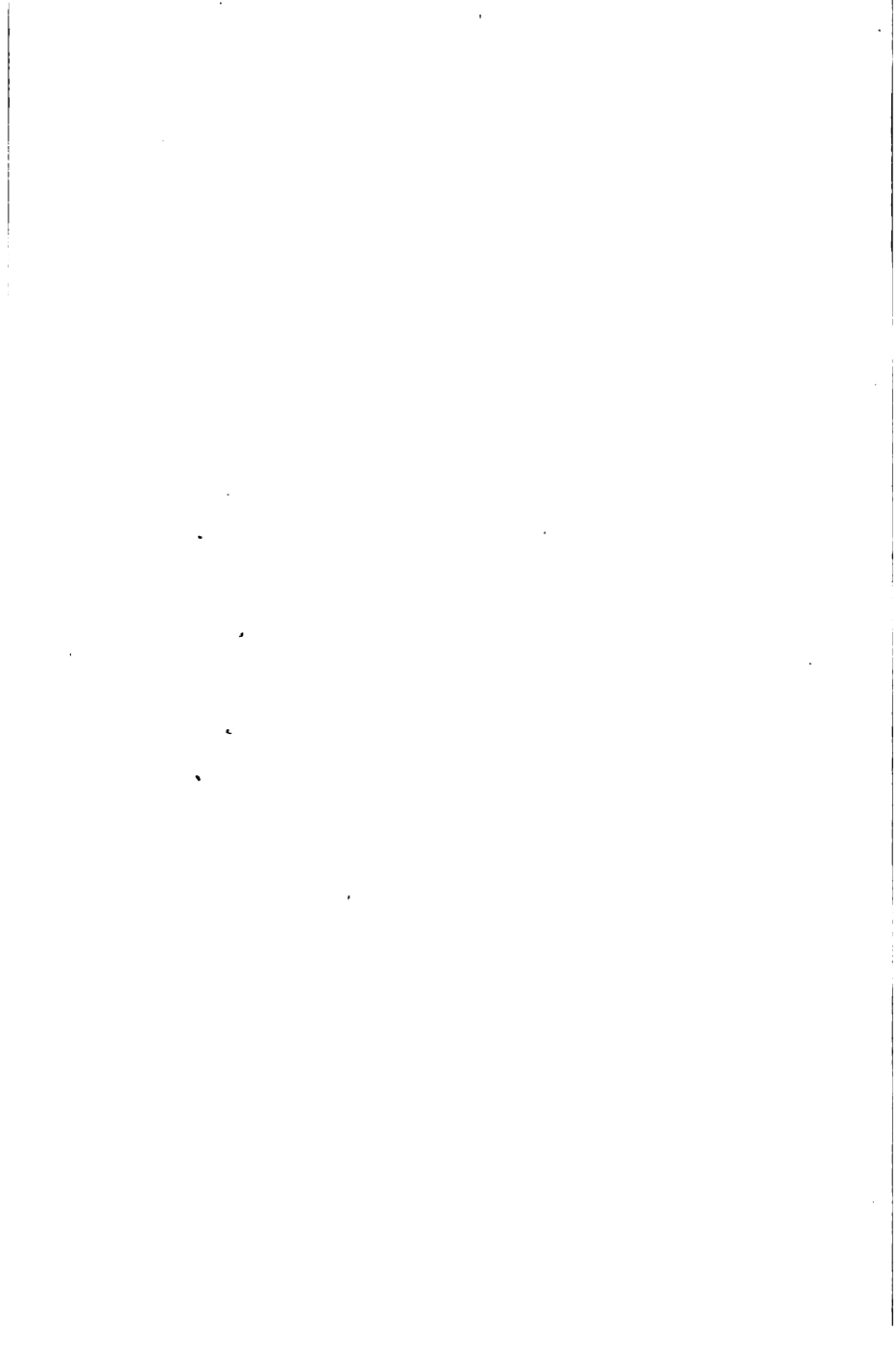
SMALL CRAFT

G.H.P. MUHLHAUSER

22281 E. 1257







On Active Service Series

SMALL CRAFT



H.M.S. Q 23

SMALL CRAFT

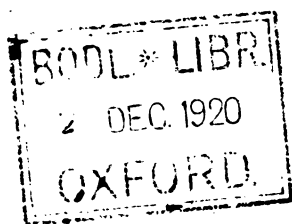
By G. H. P. MUHLHAUSER
LT. R.N.R. WITH FORTY-FOUR
ILLUSTRATIONS FROM PHOTOGRAPHS

Great ships and mighty captains—to these their
 meed of praise
For patience, skill and daring and loud victorious
 days ;
To every man his portion, as is both right and fair,
But oh ! forget not small craft, for they have done
 their share.

Small craft—small craft, from Scapa Flow to Dover,
Small craft—small craft, all the wide world over,
At risk of war and shipwreck, torpedo, mine and
 shell,
All honour be to small craft, for oh, they've earned
 it well !

C. F. S.

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To
LIEUTENANT P. J. MACK, R.N.
AS A REMINDER OF MANY PLEASANT
AND SOME UNPLEASANT HOURS
SPENT TOGETHER IN SMALL CRAFT
IN 1917 AND 1918.



PREFACE

THIS book has no particular style, or literary merit, but it is a record, as faithful as I can make it, of incidents which took place. As Press Correspondents never went to sea in small craft the general public did not and could not know anything of the work these did, beyond the fact, perhaps, that some swept for mines, and others did patrol or escort work, or hunted submarines in various ways. What actually happened to the little ships when they left harbour, and the sort of experiences they went through was hidden, and unknown. The following very much condensed account may therefore prove of interest.

I have to express my thanks to the proprietors of *Punch* for permission to reprint the verses that appear on the title-page.

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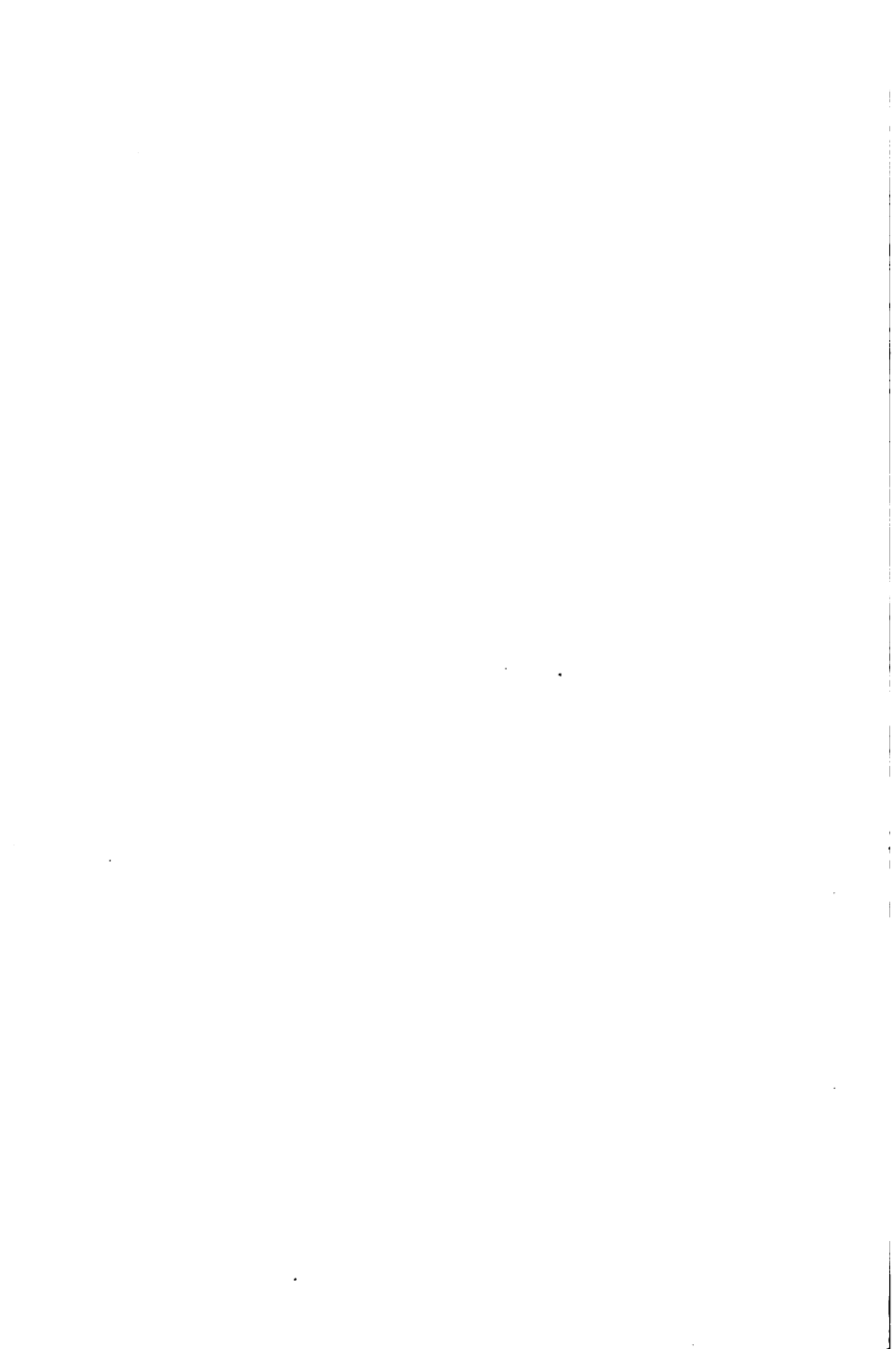
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SMALL CRAFT



SMALL CRAFT

CHAPTER I

"ZAREFAH"

ON the 24th August, 1914, a small yacht, the "Zarefah," was steaming down the Wallet, a channel just south of Harwich, inside the Gunfleet Sands. There was nothing remarkable about the ship, but she carried, perhaps, the most remarkable crew that put to sea during the war, as all the deckhands were Cambridge graduates or undergraduates. Though not seamen they were all watermen, and amongst them were some famous oars, including R. Leblanc Smith, captain of the boats; K. Garnett, who rowed in the 'Varsity boat in 1914; A. A. Swann, twice winner of the Goblets, and one of the crew which beat the Germans in the final for the Stewards Cup in 1914, and who had other wins to his credit, and who has since rowed in the Cambridge crew for 1920; while the rest were mostly well to the fore in the athletic world.

Their names were, F. D. H. Bremner, E. Carrington, E. Cadbury, H. W. Harvey, C. Wenham, while H. Massey also joined from the R.N.V.R. depot at London. In addition there were one or two sea-scouts from Ratcliff.

The officers were all keen sailing men, and more or less familiar with the sea, but none of them had

ever handled a steamer before, so that taking them all round the ship's company may fairly be described as remarkable. She was, as far as I know, the only ship during the whole war manned entirely by amateurs, except for the engine room staff. In fact the whole affair was most irregular, and could only have been started right at the beginning of the war, and, indeed, it would not have started then if it had not been for the ability, drive, and influence of Lieut. W. H. S. Garnett, R.N.R., who was in command of the ship, and who had conceived and organized the affair. His original idea had been to equip a ship as a Hospital Transport, and he had advertised for the loan of a yacht for the purpose. Mr. S. Price replied with the offer of the "Zarefah," while K. Garnett, brother to the C.O. (Commanding Officer) selected the crew from among his friends at Cambridge. The advertisement put me in touch with Garnett, and he took me as 1st officer, while D. M. Haig rolled up as 2nd officer.

In the matter of a comparatively few hours therefore Garnett had got together ship, officers, and crew, and the only thing remaining was to get official recognition. We were all very keen on the Hospital idea, and pictured dreadful battles at sea with the "Zarefah" steaming about in the midst of them and picking up survivors and casualties, but the Admiralty, when approached, did not see eye to eye with us in the matter, and refused to have anything to do with us.

"No," they said. "We do not want you. Go away and enroll yourselves properly somewhere."

This was a bit of a jar, but it only served to spur Garnett on to greater efforts. He ranged about the Admiralty, and finally succeeded in getting the ship



H.M.S. "ZAREFAH"



CAMBRIDGE UNDERGRADUATES AS A.B.'S, AND THREE OF THE OFFICERS



accepted for service at the Lowestoft Base. How he managed it I have no idea, though I followed him dutifully about, but he was a very clever man and impressed people, while in addition he seemed to know the right men, and got to the fountain-head straight away.

As soon as the matter was fixed up things began to move with some speed. In less than a week from the time when the word " Go " was given the ship had been hauled off the mud, fitted out, uniforms ordered and delivered, commissions received and the crew signed on, and we had reported at our Base.

The unhappy staff there was working day and night to reduce the chaotic condition of affairs reigning to some semblance of order. Ships were arriving daily to be fitted out as mine-sweepers or patrols, and the local engineering and shipwright firms were at their wits' end to cope with the work, while all the men of the crews had to be medically examined, trained in their duties, fitted with uniforms, and supplied with food and stores. The available staff was unequal to the sudden rush, and the result was a welter of confusion.

Under the circumstances our appearance on the scene was greeted by the overdriven staff with a groan. Another ship on their books, more men to be fitted out, more stores required, more work ! We were not, however, much bother to them at first, and all they did was to put three rifles and some ammunition on board, together with a few medical stores, and send us out.

Our work, we found, was to form a connecting link between the patrols, and the various groups of mine-sweepers from the North Foreland and the Outer Dowsing Light Ship, and the Base at Lowestoft. None of the ships then were fitted with W/T (Wireless

Telegraphy), and our business was to collect any reports they might have to make, and take, or send, them in. That was nominally our work, but we were mostly employed on other jobs, looking for reported floating mines and so on. At the start, however, we worked on the patrol and mine-sweeping line.

The start was not a very brilliant one as the Harwich destroyers captured us on the second day we were out, and took us into Harwich as prisoners. The trouble seems to have arisen from the fact that the notice sent out by Lowestoft to the neighbouring Bases that they had set us to work on the patrol line went astray in some way, and consequently Harwich knew nothing about us. When therefore we turned up and started steaming jauntily down the line, filled with a pleasing sense of being on active service, we left a trail of suspicion behind us which culminated in our being taken in as highly suspicious characters. Explanations followed, and we were dismissed, and left with a feeling that we had done something wrong, without quite knowing what it was, and must not do it again.

On our return to Lowestoft we filled up the ship's complement by two more deckhands, W. O. Meade-King, the manager of a China clay works, and G. E. Fowler, a soda water manufacturer, Dr. Mallam, and G. Doré, ex-Yeoman of Signals, the latter a most valuable addition, as not only was our signalling right up to the mark, but he guided us in all matters of etiquette. He was a wonderful signaller, and when fairly going would stand in a perfect whirl of flags. Battleships at times had difficulty in reading his signals, so rapidly were they made. On one occasion the "Illustrious" after taking in a whirlwind message, made "Signalman to Signalman.

Where did you learn signalling ? ” To this Doré replied instantly and mendaciously “ At Cambridge,” and our character as a most extraordinary ship became confirmed.

On the 6th September they started fitting us with two 3 pdr. guns, and W/T. This work was finished by the 14th September, when we left harbour with Commander R——, who came with us to conduct some trials with drift nets on the Humber minefield, where, by the way, he had been blown up in the “ Speedy ” on the 4th September. The idea was to find out if mines could be exploded by drift nets carried foul of them by the tide.

Two drifters met us out there and followed us to the spot where Commander R—— calculated that mines would be found. While the nets were being shot he looked on and chatted, apparently quite unmoved, in spite of the fact that he had been blown up in the immediate neighbourhood only a few days previously. As a rule people who survive being blown up in small ships are quite unfit to go to sea again for weeks, or even months, but Commander R—— never turned a hair. He must have had nerves of steel.

In September an Admiral was appointed to take charge of mine-sweeping, and he selected our little craft for his flagship when he wanted to go out and see for himself how things were shaping at sea. His advent worried us a good deal. The “ Zarefah ” was a small ship, and she was packed full of men already. How were we to manage ? The Admiral, of course, would feed by himself. That we could arrange by keeping all the officers on deck or down below at his meal-times, whilst, as regards a cabin, Dr. Mallam would have to turn out of the deck cabin, and camp out somewhere. So far so good. The weak point was the

food question. What sort of things did an Admiral eat? Could he possibly live on our fare? Food had been our trouble all along, though it had improved since Haig and I took a firm stand in the early days, when required on one occasion to dine on soup and stewed fruit only. As a matter of fact the galley was a great deal too small for the 22 men on board. If it now had to turn out a lot of extra dishes for the Admiral the rest of us would have to live on biscuits and bully beef. And then the thoughts of salutes, and piping the side hung over us like a cloud. Even Doré, the ex-Yeoman of Signals, who was our guide in matters of naval etiquette and procedure, took a gloomy view of the position. It would be better not to try piping the side he thought, even supposing we were able to borrow a pipe from somewhere. At length on the 22nd September the Admiral came off. We watched his approach with anxiety, trying to read what he thought of the ship and crew from the expression on his face. Admirals, however, as we found out in time, are not in the habit of showing their emotions, and we learned nothing from his handsome, shrewd, yet kindly face. The awful moment had arrived; he stepped over the side, and then to our great relief he smilingly shook hands with the C.O. and the officers, and did not appear to notice anything wrong with our reception of him. He told the C.O. to weigh and go out to the Humber minefield. A seaplane carrier was to follow us out, and the A.M.S. (Admiral of Mine-sweeping) intended to go up in one of the 'planes to ascertain if submerged mines could be seen from the air. Most mines are moored with a wire and sinker, at anything between 30 ft. and 3 ft. below low water at spring tides, and consequently they never show on the surface. There



THE UNDERGRADUATES INTEREST THEMSELVES IN THE SUBJECT OF COAL



COALING



is one type which is not moored, and which floats about, rising to the surface at intervals, and then sinking again, but it is very seldom used, and then only for a special purpose. Moreover, it is only active for a small number of hours. Of course the ordinary moored mine sometimes breaks its mooring, and comes to the surface, but it is then comparatively harmless, even if active, which, according to the Hague Convention, it should not be under those circumstances. Practically all German mines, however, are active, even if they have broken adrift, care having been taken that the safety gear cannot work. Whenever the expression "floating mine" is used in this book it means a mine, once moored, which has parted its moorings, and is floating on the surface.

It was a beautiful day, calm and sunny, and one well suited to the trial, though there was a fairly big swell as a result of recent gales. We steamed along at our best speed, 10 knots, with the Admiral's flag flying at the main. As we approached the spot where we were to meet the seaplane carrier, we saw a few trawlers in a group, firing. One of the trawlers signalled as we came up, that there was a mine on our port bow, and we soon made it out, and noticed also that it was Commander R—— in the trawler, "Kaphreda," who was firing at it with a 3 pdr. Indeed the Commander was working the gun himself, and was so engrossed with the task in hand that he never saw the Admiral's Flag, but seized a megaphone and rudely ordered us away. This was a bit thick under the circumstances. "Lay me across his bows," said the Admiral, and we should have done it if the "Kaphreda" had been steaming at full speed instead of being stopped. The Admiral then said a few well chosen words to the extremely apologetic Commander, who

had by this time seen his mistake, and the matter ended, but nevertheless it was the Commander who sank the mine, and not we.

This little episode over we made for the seaplane carrier, and anchored near her, while the Admiral was taken over, got into the 'plane which was waiting for him, and went for his flight over the minefield. He returned sooner than we had expected, and said that he had not been able to spot any mines in spite of the favourable conditions, as there was too much sand in the water, but that he had seen a vessel blown up to the northward, and that we were to make for the place at once. He would not allow the seaplane carrier to go as she was too valuable to risk.

We started at once, and soon saw a trawler ahead which turned out to be the "Kaphreda." They signalled that they had three survivors on board, and asked for Dr. Mallam to be sent across. Owing to the swell and the exaggerated way in which the "Zarefah" rolled we had some difficulty in lowering the cutter, and indeed were within an ace of spilling the crew into the sea in the process, but in the end it got safely away, and took the Doctor across. When it returned it brought a message that the Doctor would go in with the survivors, and the Admiral ordered the "Kaphreda" to proceed to Grimsby at once. Off she steamed while we struggled to hoist the cutter. To our great surprise the Admiral ran up and lent a hand at the falls, a most unusual proceeding on the part of an Admiral, it need hardly be said. He, however, honoured us by laying aside formality and routine when on board, overlooked all our unintentional lapses from the correct procedure, and indeed treated us more as friends than as very junior officers. I think he was secretly amused at the extraordinary

crew we carried, and was always very much interested in, and perhaps just a little proud of our splendid 'Varsity deckhands who were really the feature of the outfit. One morning he came to breakfast smiling and said that he had seen a sight in the small hours which he had never seen before, our sentry, the soda-water manufacturer, marching up and down on the quay, carrying his rifle under his arm like a fowling piece and smoking a cigar! He had never seen a sentry behaving in this casual way before, but he was only amused and related it as a joke.

He was extremely nice to us all, and eased things greatly by joining the officers' mess instead of taking his meals alone. At table he put us all at our ease by relating reminiscences and anecdotes. The fact that he had done a lot of small boat sailing may have led him to regard us with a sympathetic eye.

To return, having hoisted the cutter we chased a few trawlers off the dangerous area, and then made for the Humber. Luckily we hit it off. We had been steaming about all day out of sight of land and in a strong tide-way, and were a bit uncertain of the position, while there were no shore lights to guide us in, so that it was a relief to see the Humber Light Vessel's riding light.

At 11 p.m. the Doctor rejoined. He said that the three survivors were doing well, though still suffering from shock. The trawler had been fishing, and her trawl had fouled a mine. She cut her gear away, and started in to report the matter, but struck another mine and was blown to pieces. One of the survivors claimed to have been blown through the wheelhouse top.

Next day we returned to Lowestoft where the A.M.S. left, and we were then sent to try and find a

floating mine off the Outer Dowsing. Failing to find it that day we anchored under the lee of the shoal. Although we knew nothing of it until some time afterwards we were within an ace of being sunk by the T.B.D. "Thorn," which spotted us during the night, and challenged. At first the quartermaster, new to the job, took no notice, but as the flashing went on he called the signalman who, realizing the seriousness of the position, rushed out clad only in a shirt and pants, and tried to reply with the candlelamp. It could not be got to burn, and much time was lost before he was able to reply. Meanwhile the people in the T.B.D., getting no reply of any kind to their challenge, came to the conclusion that we were hostile, and were on the point of opening fire when our tardy reply was made.

Next day we found the mine and sank it with the 3 pdr. at the first shot. We then searched for some drift nets which had been seen the previous day, and which were supposed to form part of those shot ten days previously on the Humber minefield. After a time we came across them, and the question arose as to what was the best way of tackling nets which might be foul of one or more mines. The C.O. decided to lower a boat, and make fast, then to heave them in over the bow, while going astern very slowly to keep the ship clear. The nets were torn in places, and had been foul of something, but there were no mines.

On returning to harbour our lads did one of those things which amused some people, and annoyed others. They wished to celebrate our first encounter with a mine, and Doré's markmanship, and stood him a dinner at the Royal hotel, which was also the headquarters of the Naval staff at the Base. The

"Royal" was the best hotel, and therefore seemed to them to be the proper place for the entertainment. They did not stop to think what would be the effect on the senior officers of a number of bluejackets, and a warrant officer, filing into the sacred dining room. All passed off well, and nothing was said at the time, but a hint, rather a direct hint, was given later that such doings were not in order. However, the officers of the pukka Navy ships in the harbour did not stand on ceremony with us. They seemed to consider the venture a sporting effort, and rather an amusing affair, and frequently, when in harbour, came to the sing-songs which were held almost nightly in the "Zarefah," and which were attended by our bluejackets. Those early days were great, and would have been perfect but for one jarring influence. As it was, I do not suppose they will ever be forgotten by those who were then on board and who survived the war.

For the next few days we returned to the old patrolling and then went to the Humber, where the A.M.S. embarked on the 1st October, bringing us fine weather as he almost always did. As we left the river in the early morning bound for the Tyne we saw about forty large lighters being towed in. This looked very much like the realization of "The Riddle of the Sands" plan, the invasion of England by an Army Corps towed over in swarms of lighters, and we manned our two popguns and bore down. They turned out to be mudhoppers, and we proceeded on our way north, keeping a good lookout for floating mines reported off Whitby. These had probably broken adrift from a minefield which the Germans had laid off the Tyne in August. No mines were sighted.

At dusk we slowed down to avoid arriving off the Tyne before daylight. It was a dark night with a smear of rain. Everything was quiet and peaceful, when suddenly a searchlight was turned on the ship from about 100 yards away on the quarter. A T.B.D. had crept up to find out what we were about. Doré was hurriedly sent for, and came racing along the deck, braces flying in the wind, holding up his trousers with one hand, and with the signal lamp in the other. "This is the 'Zarefah,'" he flashed, "the A.M.S. is on board." This was looked on as a clumsy lie. It was unlikely that an Admiral would be on board such a small craft, and they plied us with one question after another. At last Doré, who was getting wet and cold, snapped out a message, and the light was at once switched off, and the T.B.D. went away. Some days later we met her in port, and learned that they had been very doubtful of us, but that their signalman came, after Doré's last message, and reported that we had a naval rating on board. This satisfied them and they left us.

We inquired what the message had been, and were told that it was an extremely rude message sent from signalman to signalman in the yeoman's private code. Anyway it served our turn all right.

Some days afterwards when we were at Lowestoft a number of Belgian smacks arrived crowded with refugees from Ostend. Most of these latter had started with very little food, and they were famished on their arrival, and fought like wild animals for the loaves of bread which various charitable people threw on board the smacks, as they passed the bridge.

A mine-laying scheme was now to the fore, and the A.M.S. came down on the 17th October to superintend the sweeping operations, which were necessary before



F. D. H. BREMNER, D. M. HAIG, K. GARNETT, E. CADBURY, A. A. SWANN
ABOUT TO WASH DOWN AFTER COALING



SOME OF THE BELGIAN SMACKS WHICH BROUGHT OVER REFUGEES
FROM OSTEND



the minelayers could get to work. We left in the afternoon with a small flotilla of trawlers, steaming out in single line ahead, and making, we heard, quite a fine show. We anchored for the night near a shoal about ten miles out at sea, and had a restless time as there was a fresh breeze, and we all or most of us, dragged our anchors before morning. Indeed some of the ships were out of sight at dawn. However, the absentees soon turned up, and sweeping started, and continued all day. The ordinary method of sweeping is for two ships, about 400 yds apart, to tow a 2½ in. wire between them. By means of a device called a kite the wire is set for any depth which may be decided on. As the sweepers advance the bight of the wire which is being towed catches the moorings of any mines which may be in its path, and either parts them, or, if the mooring holds, tows the mine and sinker until the sweep is ended, when the wires are hove in taut, and the mine shows on the surface.

Next day the mine-layers arrived, and laid their “eggs,” and two days later came again and completed the job. When they had passed the first markboat on this second visit we steamed up to her, and told the skipper to weigh anchor, and clear out. He seized a megaphone and shouted “I cannot heave in; they have dropped a mine on my anchor.” In the end he had to slip and lose the anchor and part of the cable. We remained until they were clear, and then made for Yarmouth.

On the way in a tremendous explosion occurred about three miles off, and water and spray were thrown from three to four hundred feet into the air. It was some of our mines going off by themselves.

During the next few days we steamed about in search of floating mines reported in various positions,

and once we took the A.M.S. to the eastward of the Galloper Light vessel to investigate reports which he had received. One ship had reported forty floating mines sighted on one trip between the Hook of Holland and the Galloper. The A.M.S. wanted to know what it was all about. Anything black that floated was reported as a mine in those days, and these forty mines were all fishermen's buffs, boxes, or baskets; at any rate we found plenty of such debris, but no mines. On the way back we spoke one of the Light vessels, and they sent a boat for newspapers and told us of their recent trying experiences. According to their account a great many of the mines we had seen laid had gone off on their own, while a number of the others had broken their moorings, and had come drifting down with the tide towards their vessel. They had abandoned the ship once and taken to their boat. The A.M.S. spoke to them, and assured them that drifting British mines were safe, but they still seemed to have lingering doubts. Perhaps they could not forget the mines which had gone off without anyone touching them. Those early mines of ours were not good, and their moorings were, if anything, worse, but a year or two afterwards quite good ones were being made on the German model.

On one occasion when searching for floating mines we caused rather a stir ashore by reporting as suspicious two vessels we had sighted. They looked like gunboats. We tried to intercept them, but they were too fast for us. We noticed that they had passed fairly close to a Light Ship ahead, and we closed her to find out what those on board thought of these two ships. They said they had examined them closely as they went by, and thought they were



BELGIAN SMACKS



BELGIAN SMACKS



mine-layers. This gave the affair a very black look, and we sent in a W.T message. T.B.D.'s and fast patrols were called up, and the two culprits were stopped, and were found to be two paddle-mine-sweepers, and so that panic died away.

These paddle-sweepers with their good speed and light draft turned out to be very suitable for the purpose, and as many as could be got hold of were hired and fitted out for mine-sweeping, and in addition a large number of the same class of ship were specially built. Some of the hired ships were regular old stagers, and had carried excursionists for twenty years or more. At first it seemed strange to meet one of the "Belle" class for instance, sweeping up mines, but one soon got over the feeling of amusement when one saw the excellent work they were doing. It was the trawlers, however, which saved the situation at the start, and indeed right through the war they were the backbone of the mine-sweeping service. Day after day, year after year, in all weathers they plugged away and kept the trade routes clear round the coast. Grand men, grand ships. They suffered cruel losses, for they really drew too much water for the work, but they kept at it all the time. And there was no choice at first. They were the only ships fitted with a winch powerful enough to tackle the heavy sweep wire, and they had to be used. It is lucky we had that splendid fishing fleet to draw upon, and it was drawn upon to some tune. Trawlers swept for mines, at times laid mines, patrolled the coast all round England and Scotland, all round Ireland, off North Russia and in the Mediterranean, escorted merchantmen up and down, across the Channel, out into the Atlantic and the Bay of Biscay, rendered yeoman service in Gallipoli, and finally, fitted with

hydrophones, chased Submarine Fritz relentlessly about, and went far to destroy what little nerve he had left. They were everywhere and did everything, but they never bulked large in the public eye during the war, and probably many have never heard of them. There they were, however, day and night, blow high blow low, in heat and cold, steaming about intent on their business, unsung but not unhonoured by those who knew of them and their work. Dirty, dingy trawlers, and your hard-bitten crews, I take off my cap to you. It is an honour and a privilege to have met you and worked with you, for right manfully have you both played your part. The country owes you much, but knows you not.

In December, 1914, a bombardment of the Belgian coast east of Nieuport was planned, and we were sent over, with a group of trawler mine-sweepers to clear a passage for the battleship which was to fire. This sweep was by no means an easy job, as it had to be done at night, the German guns along the coast preventing any work in daylight. Now for satisfactory results in mine-sweeping daylight is essential as the area swept has to be marked, either by anchoring small ships at intervals, or else by dropping a dan buoy—a buoy with an upright spar about 20 feet long bearing a large flag—attached to a sinker. Briefly, the method is to anchor these markboats, or buoys, along the edge of the area to be cleared. The sweepers then came along, steering so as to pass close to these marks. As soon as they have gone the markboats weigh anchor, steam across the wake of the sweepers, and anchor again just inside the further edge. The sweepers again pass close to them, and again the markboats shift across, and so on until the area is clear. If buoys are used in the absence

of markboats, they are dropped at suitable intervals by the inside sweeper of the outer pair as she steams along. As at night these marks cannot be seen, sweeping is never carried on then except when clearing areas commanded by the enemy's guns, as in the case of the Belgian coast. The sweepers have then to do the best they can without marks, but the results can never be relied on ; gaps may have been left, and it is impossible to guarantee that all mines have been swept up.

On the 13th December we entered Dunkerque with six trawlers. Commander W—— was on board our ship, and in charge of the operations. In the evening Lieut. Curzon R.N.R., and the skippers of the remaining five trawlers came on board for instructions, and were told to sweep next morning as far as they could go to the eastward without drawing fire. Later on when it was dark, if they had survived, they were to form up astern of us, and to follow past Nieuport, and for about two miles along the coast.

Next morning we left harbour at 7 a.m., and passed through the Roads, the Zuidcoot Pass, and on towards Nieuport. Commander W—— then transferred over to the leading trawler and they formed up in three pairs, and started off, while we hovered about in the background so as not to attract attention. At first everything went well ; the trawlers steamed along, and tried to look as much like fishermen as possible, and we began to hope that they would get up to Nieuport before their character was realized. But the wily Boche was only waiting for them to get well within range before opening fire. He probably knew quite well what they were about, and inferred that a bombardment was contemplated. As soon, therefore, as they were near enough he opened up with two guns

to drive them away, and prevent them from sweeping up any mines that might be there. The trawlers had no choice but to clear out, and promptly slipped the wires, hove them and the kites inboard, and ran for it. Shells burst ahead of them, astern and alongside, but none was hit, though the men on deck were drenched by the spray thrown up, and a few splinters struck the ships. Ten minutes put them out of range, and we all returned to the Roads to wait for darkness before making our next attempt.

At 5 p.m. it was quite dark, and we weighed. All lights on board the ships had been carefully obscured, and not a glimmer showed as we steamed for Nieuport in single line ahead. Having reached the starting point we stopped while the sweepers passed the sweep wires across, and got into proper formation. When they were ready we led off and sounded along the 5 fathom line while they followed, the first pair keeping station on us, the second on the first, and the third on the second pair.

The night's adventure had begun, and all kinds of excitement might be expected. To begin with we had to steam for two miles along the coast at a distance of three quarters of a mile from the German guns, which lined the sand-dunes. If as a result of our activities during the morning they were keeping a good look-out, and had any searchlights to turn on they would have us at point-blank range, and we could hardly escape. Moreover, they might send a T.B.D. or so from Ostend, distant 8 miles, and settle us that way. There were only two 3 pdrs. among the seven ships, so we could not have made much resistance if they had. In addition there was always the chance of being blown up by a mine, so that what with one thing and another we seemed likely to have plenty

to occupy us. As a matter of fact as far as incidents were concerned the evening turned out a dull one, though the constant prospect of a sudden and violent death kept us interested all the time, and none felt in the least bored. I had to do the sounding, and as this was by hand lead and was kept going continuously I had a sloppy time, and was soon very wet and to some extent lost interest in passing events. My hands were cold and numbed, and I was getting wetter every minute. These things and the necessity of getting correct soundings, struck me as important, and the anticipation of extraneous excitements faded into the background. Those who had no special work to occupy their attention were not so easy in their minds. They had plenty of time to give their imagination full play, and to dwell on the unpleasant things which might possibly happen, and probably found the agreeable feeling of suppressed excitement merging into that of great tension. Hanging about with nothing to do, and rather expecting some form of frightfulness to spring at one out of the darkness is apt to be trying, but if they felt anything of the sort our lads managed to conceal their emotions very successfully.

The C.O. flitted about on the bridge, now poring over the chart, now listening to the soundings being called from the lower deck. He was enjoying himself immensely. It was just the sort of thing he liked.

On shore star-shells were being fired fairly continuously from the trenches, and the rifles were "tock tocking" all the time. The sound never entirely ceased. At first the shells and the firing were on the starboard bow, but we gradually drew level, and then brought them on the quarter. We were then right under the German guns and the star-

shells gave such a brilliant light that it seemed impossible that those on shore could miss seeing us, but if they did they took no steps, and we ran our distance without drawing fire, or meeting any hostile craft; turned, and swept back on a parallel course, clearing a strip about a mile wide. It seems strange that they did not try to stop us, but all through the war the Germans at sea seemed curiously lacking in dash and initiative. Perhaps they mistook for deep laid plans to catch them the off-hand way in which some of our very lightly armed craft, without support of any kind, used to wander about pretty much as they liked. While we were wondering at their passiveness they may have been congratulating themselves on their caution and skill in avoiding traps which never existed.

Next day the battleship arrived, and while she was bombarding the German positions, a few T.B.D.'s, the trawler sweepers, and ourselves steamed round to form a submarine screen. One of the T.B.D.'s had a narrow escape from being sunk, as she came under the fire of a shore battery of six guns in pairs. She tore along, now on one course, now on another, while shells in pairs were continually falling on the spot where she had been the second before. It was painfully exciting to watch. Nothing could be done to help her; she had to rely on her commander's skill in doubling, and her speed, to baffle the gunners, and she got through safely in spite of really excellent gunnery work on the part of the Germans. Only one man was wounded by a shell splinter.

Meanwhile the battleship, aided by two river gunboats, had been hurling shells at the German lines. The shore guns replied feebly, and the battleship was hit once without serious damage.

During the bombardment, which lasted two hours, none of the ships firing had seen their target. A map marked off in squares had been given them, and they were told to fire into such and such a square. On arrival off the coast their position was fixed by the bearings of marks on shore, and the direction, or bearing, to the square was laid off, and the distance, or range, measured on the map. This range was then put on the sights, and the gun trained on to the bearing, and the firing began. The whole affair seemed very impersonal and coldblooded. After the guns had gone off there was a pause, and then at some distance inland a mass of dust and what looked like clods of earth, or bricks, though it may have been bits of Germans, leaped into the air. Things must have been very unrestful for the Boche while the bombardment was on. One can imagine him crouching in a muddy hole, and "Gott strafing England" with great sincerity.

As soon as the correct number of shells had been fired the battleships moved off surrounded by their attendant screen of small craft steaming ahead, astern, and on the beam.

CHAPTER II

"SAGITTA"

NEXT day we left for Portsmouth to pay off the "Zarefah," and commission "Sagitta."

The A.M.S. had decided that the former was too small for knocking about in the North Sea in winter, and had secured the latter, which was a Camper & Nicholson built yacht of 750 tons, belonging to a French duke. She was a fine seaboat, fast for a yacht, 15 knots, and was most luxuriously fitted. She carried a wireless installation, of course, and her armament consisted of two 12 pdr. guns. A high angle 6 pdr. gun was fitted aft later. All the crew of the "Zarefah" transferred over to the "Sagitta," except an engineer and a stoker, and Massey, who had left to join the Naval Division, Wenham and Fowler who left to take commissions in the Army, and Leblanc Smith who had also taken an Army commission, and who had by then been killed, to the great grief of all who had been privileged to know him. His was a strong character, yet withal he was courteous, kindly, and full of tact. His death was a great loss to his friends and to the nation.

In place of these came J. P. Corry, L. Scott, J. W. Wooding.

I had a bit of bad luck over the transfer, as I dropped from 1st to 2nd officer. This arose through the fact that when the "Zarefah" was given up by the A.M.S. it was understood that I was to remain in her in

command. In making up the list of officers for the " Sagitta " therefore I was left out. The Admiralty then decided, however, not to employ her as had been intended, and I was left without a job. At the last moment the 2nd officer of the " Sagitta " was unable to join, and I was glad to step into his place. As long as I was serving in some capacity I did not care much what it was. Later on the Admiralty found a use for the " Zarefah " and she was re-commissioned. In 1917 she struck a mine, and was lost with all hands.

On the 6th January 1915 " Sagitta " had done her trials, and was ready to sail. On the eve of our departure Mr. Nicholson, who had taken the keenest interest in the venture throughout, entertained the ship's company, with a few exceptions, to a dinner at the Queen's Hotel, by way of wishing us God-speed. As our A.B.s were in seamen's rig the very respectable guests at the hotel were much surprised to see them arrive, and one Naval Officer was quite overcome, and sank into a chair in a state of scandalized bewilderment. Presumably some one reassured him, as he finally consented to dine in the same room as our " matlows," but our table seemed to fascinate him, and he could not keep his eyes off it.

On leaving Portsmouth we made for the East Coast, and were in the Tyne on the 16th January when orders came late at night for us to be at a certain time at Peterhead to meet the A.M.S., and take him to visit the chief Naval Bases on the East Coast.

The night was pitch black, and there was a N.N.W. gale blowing with frequent snow squalls. It was not a pleasant night to put to sea, however " growl you may, but go you must," and we cast off at 11 p.m., and groped our way down the river, and out to sea. It was very rough outside, and

before long one wave carried away the starboard breakwater on the fo'c'sle, while another one leaped inboard amidships, and smashed one of the engine-room scuttles, sousing the heated and lightly clad engineers with ice-cold water. They thought a shell had struck the ship. Speed had to be reduced. Spray flew over the bridge in continuous sheets, while snow squalls drove up at intervals and blotted everything out. It was very difficult to see what was ahead, and quite impossible to keep dry. By degrees the rough night dragged slowly through, but it was not until noon next day that we got some shelter from the snow-clad Scotch hills. Just before dark we entered Peterhead, and anchored. The A.M.S. came on board during the evening.

At intervals next day, as we passed up the coast to Scapa Flow, War Signal Stations on shore challenged us, and patrols came up and chatted. Our replies being satisfactory we were allowed through, and made for the Examination Boat off Hoxa boom. She told us how to enter, and told off a drifter to lead us in. All the entrances to Scapa Flow were blocked by booms, sunken ships, or other obstructions, but some of the booms had "gates" which could be opened.

The Grand Fleet seemed to have chosen a very desolate and depressing place for a home. The Flow is a deep water anchorage at the southern end of the Orkneys, measuring roughly seven miles east and west, and four miles north and south. On the north side lies the mainland of the Orkneys, and on the south, east, and west sides lie islands, all hilly, bleak, and inhospitable. It is a dreary and depressing spot in winter. No one however, paid any attention to the scenery. The Grand Fleet was the thing, as it lay in ordered lines of big battleships. Here at last was the

" sure shield," and it looked the part. A comforting, and inspiring sight. It was impossible to help reflecting that on these ships and their leader hung the fate of the civilized world.

We steamed quietly and as unobtrusively as possible past them to our anchorage in Weddell Sound.

As soon as we were brought up the A.M.S. went on board the " Iron Duke." On his return he said that he had been congratulated on having chosen his weather so well. " It is true that it is raining," they had said, " but it is not blowing." As it was difficult to stand on deck on account of the strength of the wind we wondered what it must be like when according to the habitués it really was blowing.

Next day, the A.M.S. having finished his business, we left for Cromarty, where the battle-cruisers were lying in a beautiful Firth surrounded by high hills. Here also a boom stretched across the entrance, while batteries crowned the two hills between which the Firth lies. By this time all harbours were protected by booms, but at the start of the war there was not a single anchorage where the Fleet could go for coal, water, provisions, and ammunition and lie in safety. There is a yarn, which may or may not be true, that two German spies were shot by their own people for reporting that the Grand Fleet anchorages were unprotected. The German High Command could not believe that we should be so foolish, and thought that it was a trap, and that their spies had been bought by our people, and paid to make the report !

On leaving Cromarty we worked down the coast, and arrived at Lowestoft two or three days later.

After a period of sweeping off the Dogger Bank, and the Owers Bank north of Lowestoft, with Commander W—— on board our ship, and in charge of the

operations, we left Harwich on the 20th February to sweep up 200 of our own mines laid in a position about 40 miles from the Kentish and 20 miles from the Dutch coasts. Why it was necessary to sweep up our own mines no one seemed to know, and no one was very keen on the job. There is not much honour and glory at any time in being blown up, but the idea of being "skyed" by our own mines was very unpleasant. German mines would have been quite a different thing. In that case risks would have to be run, and were more or less in the day's work, but removing our own mines looked as if some one had blundered, and there is no satisfaction in losing one's life on account of some one's want of forethought. However, we need not have worried, as though we spent nearly three weeks over the job not a single moored mine was found. A few British floating mines drifted in from other minefields and were sunk by gunfire, but all the 200 had parted their moorings and gone. This may seem incredible, but it was what usually happened at that time. The subject of mines had not been studied apparently: at any rate our people did not seem to know the first thing about them, either how to make them or how to moor them when made. On the other hand the German mines were extremely efficient, and very seldom parted the moorings.

Two enemy seaplanes attacked us one day while we were searching for these 200 mines. We were at the north end of the line, with a number of sweepers near us, when we got a W/T message from one of our trawlers at the other end "I have been attacked by seaplanes. They are going your way." A minute or so afterwards two specks appeared in the sky, which rapidly developed into 'planes coming straight

for us. The Secretary to the A.M.S. happened to be on board, and, by way of marking the fact that a battle was about to take place, he put on his sword, and walked up and down the deck trailing it after him ! In itself it was not much of a weapon against aeroplanes, but it gave tone to the affair.

As soon as we got the message we made for the group of ships to tell them to scatter. Perhaps this was an unwise thing to do as it drew the 'planes towards the crowd, and by the time we were up to them the 'planes were overhead, and dropping bombs. None of our guns would bear, but a vigorous rifle fire was opened, and a small piece of some stuff was shot out of one of them, without seeming to have much effect. For a time while the bombs lasted things were a bit warm, though no direct hits were made, and then our assailants turned, and made for home. We heard later that the sweepers were very annoyed with us for attracting the enemy to them by steaming up. However, no harm was done.

While still diligently sweeping the area where the missing mines should have been, we were suddenly ordered away to Beachy Head. Several ships had been lost off there and mines were suspected. Quite a crowd of us spent a couple of days searching the area, without finding anything in the way of mines, and it was finally decided that the lost ships must have been torpedoed. There being nothing more to be done the flotilla dispersed, and we returned to our abandoned area, to spend several more days in completing the search. At last every inch had been swept, and we all packed up, and moved off. As we left a British floating mine drifted in, as if in derision, from some other field. We sank it.

Our destination was Harwich, and we were gloating

over the prospect of a bath, and an undisturbed night in our bunks, an ideal condition of affairs to which we had been strangers for the last fortnight, but it was not to be. A W/T message ordering us to Dover shattered our dreams. Round we went, wondering what on earth was in the wind, with the paddle sweepers streaming out unhappily astern. At 9 p.m. we were off the entrance, except one ship which had lost us on the way, but it was two hours later before we were allowed to enter the harbour, and it took another hour to shackle on to a buoy, as we could not see what we were doing in the dark. No sooner was this done than orders came to proceed at once to Dunkerque! There was nothing for it but to unshackle and push off. The C.O. was dead beat, and every one else was tired and rather miserable, but it was all in the day's work.

At 6 a.m. next morning we were past Dunkerque, and getting ready to sweep. Another bombardment was coming off, and our job was again to clear away any mines there might be about before the battleship arrived on the scene. A little sweeping was done at the west end of the area during the morning, but at noon work had to be stopped as the C.O.'s of the paddle-sweepers were getting knocked up. They had not had much sleep for several nights, and as they would have to be up all that night the Commander gave them three hours in which to get a little sleep. At 3 p.m. work started again and continued until 3 a.m. next morning. Our part was marking the strip swept. Each time the sweepers passed we shifted across their track, and anchored just inside the further edge of their wake. As they approached we showed them a light to indicate our position. Work stopped at 3 a.m. and six hours' rest was

allowed. On restarting we sent away our two motor-boats to mark, and took a wire and swept with the “ Cambridge,” as partner. Fog in the morning enabled us to do some inshore sweeping, but as it cleared later on we had to anchor, and wait for dark to complete the work. Some German aeroplanes turned up in the afternoon and dropped bombs. The battleship had in the meanwhile arrived and she fired at the ‘planes, as did also the T.B.D.’s of her escort. We added to the general uproar by firing a few rounds from the 6 pdr. The Boche had probably come out to see what all that collection of ships was up to. At dark the inshore bit was tackled. We again took a wire with “ Cambridge,” and led the way. It was a flat calm, and the sea was highly phosphorescent, and each ship seemed steaming in a sea of fire. The effect was extremely beautiful, but the same time very inconvenient as it gave away our position. In addition we were making a great deal of noise, and the Germans must have known that we were there. It is strange that they did not fire. We must have made quite a good target. However, they let us completely alone, but for one shell, which may have been fired at us, or may not. In any case it fell a long way from our ships. Just after two a.m. a violent explosion occurred between the “ Cambridge ” and ourselves, and we each thought that the other had been blown up. The fact that she did not reply to the flashing signals we made, inquiring whether she was all right, confirmed the view that the “ Cambridge ” had gone, and filled us with apprehension. To clear up the matter Commander W—— hailed her through a megaphone, “ Cambridge ahoy.” Lieutenant B——’s cheerful young voice replied, as clear and fresh as if he had had plenty of rest recently, instead of

having been very short of sleep for several days and nights. It was a great relief to hear him, though the Commander's reply did not show any joy; on the contrary, the reaction from anxiety as to the "Cambridge's" fate, added to the strain of the night's work, caused him to depart from his usual courteous manner, and for the only time on record to swear. "Why don't you pay attention to my signals" he demanded, "Why don't you answer them?" a long pause, and then "Damn you." Lieutenant B—— told us later that the explanation of the inattention was that he had only one signalman, who was dead beat and unable to read the message, while he himself was too busy finding out whether the ship was all right to attend to it.

The explosion was supposed to have been caused by a mine going off in our sweep wire, or, more likely by two striking together. It gave the ship a rare shake up, but no one came up from below to find out what had happened; they were all too tired. They started out of sleep when the explosion took place, but as the engines were still running went to sleep again.

In the morning seven mines, which had been swept up by our group during the night, were sunk by one of the T.B.D.'s. These seven with the two which exploded in our sweep made nine accounted for altogether, and was very satisfactory as far as it went. To make quite sure that no more mines remained Commander W—— decided to sweep again that night, but to leave "Sagitta" out as she drew 15 feet of water against the seven of the paddle-sweepers, and the risk of losing her was altogether too great. Indeed it was remarkable that we had not been blown up the night before as it was slack low water when we

were on the minefield, which is the worst time. But " Sagitta " was always a lucky ship.

As Harvey had come out in a rash, and was found to be suffering from measles, we took advantage of the pause in the sweeping to dash into Dunkerque Roads and send one of the motor-boats into the harbour with him and the Doctor, Surgeon Alan Moore who had changed over with Surgeon Mallam, the latter replacing the former as Base Surgeon at Lowestoft. The C.O. straitly charged the latter to be back at the ship in half an hour. This gave very little time for the motor boat to go up the harbour and for the Doctor to get Harvey into a hospital, and return. In fact it could not be done, and the Doctor made extremely good use of his time in finding out where to send Harvey, and in getting him a ticket of admission. More he could not do in the time, and poor Harvey was left standing on the quay with a temperature of 102° and a ticket of admission to a hospital in his hand. He managed to find the place in the end, but it must have been an effort, as it lay outside the town altogether. Later on when the sweeping had been finished next day, and all the ships concerned had assembled in the Roads, Commander W----- went to see how he was getting on, and in the evening Haig and I also called. It was a pitch black night, and we could not find the place at first, but floundered about among sand-dunes. Luckily we came across a French soldier who guided us. With the politeness of his race he pretended to believe that I was French. This was a bit too much, considering my accent, and we had a good laugh, in which he joined, at his little game of make-believe.

They would not let us see Harvey, and he was left behind when we sailed.

To return. Just as we were starting for that night's work a picket boat from the "Venerable" hailed us to say that there was a floating mine straight ahead. This news was a bit of a jar, not so much to us as to the paddle-sweepers. It is practically impossible for a screw steamer to strike a freely floating small object, but it was quite a different matter for the others. If the mine got under their paddle-boxes the ship would be lost. However they had to risk it; the work had to be done, and Commander W—— gave the order to proceed. Off we went, "Sagitta" leading and the paddle-sweepers following until the starting-point was reached. That night we did not sweep but marked the sweep, showing a light when the sweepers approached, and shifting across their wake when they had passed. This gave us plenty of time to look round. There was not much to be seen on shore, however. There was an incessant "tock, tock" of rifles, and star-shells were constantly being fired into the air. They burst into a brilliant light high up and then fell slowly to earth, disappearing behind the dunes.

The sea was again highly phosphorescent, and the sweepers as they passed seemed to be floating on liquid fire. The effect was very beautiful. Once as I stood on the fo'c'sle I saw a thin line of fire stretching right across the horizon. It looked very weird. Was it a new form of frightfulness? We could not make it out at all. It was not until it was almost up to us that we could see that it was a ripple caused by a slight breeze. The phosphorescence made it look like a rope of fire.

At three o'clock sweeping stopped. The next morning was rather misty, but some sweeping was done until 10 a.m. when the "Venerable" appeared,

advancing slowly with an escort of her attendant T.B.D.'s. We formed up ahead of her, and continued sweeping.

A string of flags streamed aloft on the battleship. " A message of thanks, no doubt," we thought. Not a bit of it. " Get out of my way " the message read ! This was the blackest ingratitude considering that we had been sweeping all night for three nights to make things nice, safe, and comfortable for her. We felt rather hurt, but drew out of line as ordered, and made for Dunkerque Roads. While lying there a signal from the Admiral Dover Patrols was read out. It thanked all taking part in the sweep for the satisfactory way the work had been carried out. This went some way towards making us forget the " Venerable's " message.

In the evening some of us went ashore, and found Dunkerque a town really efficiently darkened. Not a glimmer of light showed anywhere, and getting about the streets was quite a problem.

Next day we all returned to our various Bases. For some time after our return nothing of special interest happened. We took part in sweeping and buoying a channel about 70 miles long out to the Dogger Bank, and made other expeditions, some of them far afield, but none offering any notable features.

On the 16th April we were in Lowestoft when a Zeppelin sailed overhead, and dropped bombs, setting fire to a woodstack besides doing other damage. The nearest bomb fell about 70 yards away. The Zeppelin was not attacked in any way, nothing in the offensive line being available. It did just as it liked, and, having circled round and dropped its bombs, went off home, leaving as a mark of its visit

about eight people killed or injured, a few houses wrecked, and a woodstack on fire. It was rather humiliating that it was not possible to put up some sort of a fight, but it was, of course, much more important that the Army in the field should have the guns rather than the coast towns, and there were not then enough for both.

During April one or two trawlers had been blown up round about a position to the eastward of the Swarte Bank, and we were sent, with Commander W——, to investigate the matter. Some paddle-sweepers came with us. It was a beautiful day. A slight haze hung round the horizon, but the sun shone brightly, and the sea was smooth, save for a slight swell. There was little or no wind, and peace seemed to reign on the bosom of the clean, cool water. It was very hard to realize that a few feet below that smiling, friendly-looking surface mines might be lurking powerful enough to blow a hole in the hull of the largest warship, or to shatter to pieces small ships of a few hundred tons. Yet they were there, as was soon apparent, ready to do their deadly work should any all unsuspecting ship strike them in passing.

Soon after sweeping started there was a loud explosion in the sweep between our partner, the "Westward Ho" and us, and a mound of water was hurled into the air. Two mines had burst in our sweep. A few seconds later another bobbed up, cut from its moorings by our sweep wire. The sound of the explosion was followed by complete silence. All the ships had immediately stopped, and lay rolling slightly to the disturbance caused by the bursting mines. Any harm done? No, all the ships were there. "We will pick up that mine" said the Com-



"MINE IN SIGHT," A FAMILIAR REPORT



**A. A. SWANN MAKING FOR THE BOAT AFTER CUTTING THE
OUTSIDE WIRES ON A GERMAN MINE**

mander. Our end of the wire was “slipped,” or let go, a boat was lowered, and he and the C.O., with two hands went off. Of course, strictly speaking, the C.O. should not have gone. His place was on board, especially as mines were about, but the immediate danger in the boat attracted him—he was that sort of man—and he would not hear of anyone else going. Off went the boat, while the rest of us looked on, and wondered what would happen. The boat circled round the black, sinister looking mine, bobbing about so innocently in the sea, and then the C.O. jumped into the water, swam up to the mine, and cut the two outside wires leading to the detonator. This the Commander thought should make it safe, though he was not sure. The mine was then towed alongside, a derrick swung out, the mine hooked on, hoisted out, and lowered on deck after the detonator had been pulled out. We breathed freely once more. It was certainly safe now that the detonator was out. The next job was to pick it to pieces, and this was successfully done. It was found to be surprisingly well made, and all the inside parts were highly finished. In fact they could hardly have been bettered if intended for an exhibition. Considering that it was destined in the ordinary way to be blown to bits it seems strange that so much care should have been bestowed on polishing and machining the works. One of the parts bore a quite recent date, proving that the mines had not been laid long. In fact in one way and another quite a lot of information was gleaned from this mine, which was sent to the Admiralty when we returned to harbour.

No more mines were found that day. At dark it came on thick, and we took advantage of this to anchor, instead of steaming about all night to avoid

submarine attack, as we should have done had the night been clear.

The engineers reported that the explosion of the mines had been very severely felt in the engine room. Indeed they thought that their last moments had come. One of the stokers had leaped for the deck, and could hardly be induced to go below again. He was an exception, and generally speaking the plucky way the engine room staffs carried on during the war is beyond praise. Well they knew that they had not a dog's chance if anything happened, yet they went calmly about their business, as if such things as mines and torpedoes did not exist. They expected no praise, and got none, but the nation owes them more than it can ever repay. Though I have often expressed strong disapproval of the engineers, and the rough, tough, hard-swearing "black brigade," and all their ways, still they did the work they had to do, and it is a duty and a pleasure to bear testimony to their unflinching courage, and utter disregard of self at all times and seasons.

The next day was spent in trying to fix the limits of the minefield, and it was proved that it did not extend in a north-westerly direction. At dark we steamed about in various directions, and kept it up until dawn, to avoid giving any submarine that might come wandering by a "sitting" shot. The drawback to this arrangement was the chance of losing the position during the night. That was what happened on this occasion, and it took three hours before we were able to fix the ship. When working, as we were, out of sight of land, or navigation marks, and in a tideway, it is often difficult to know where the ship is, unless sights can be taken, which may be impossible on account of mist. In such cases sound-



FAST TO A GERMAN MINE



HOISTING THE MINE OUT OF THE WATER ON A DERRICK



SWINGING THE MINE INBOARD



ings, and the dead reckoning are the only guides, and an unexpectedly strong tide may easily throw the latter out.

Next day we were back on the line of mines, which were found to run in a north-easterly direction, and seven were brought to the surface and destroyed, while one was picked up and taken on board, the C.O. again diving in, and cutting the wires. The water was bitterly cold, he said, and a north wind did not make things better in this respect when he was waiting in the boat to be picked up.

During the night the weather took a turn for the worse, and at dawn there was too much sea for sweeping. Moreover, we were all getting short of coal and water, and it was decided to go in for fresh supplies.

While in harbour I went for a flight in an aeroplane, by way of relaxation, and was unlucky enough to crash when going at sixty miles per hour. As a result I got a bit knocked about, and spent the next six weeks in Lady Somerleyton's admirably run hospital, a model of what a hospital should be, and so missed a good deal of excitement at sea among the mines. Over 200 mines were brought up and destroyed, not all by "Sagitta," and two more were picked up and brought in, while I was away. It was a busy time, and "Sagitta" was short handed too as regards officers. In six weeks I was back and able to give some slight relief, though not equal to standing for a whole watch of four hours. Luckily the ship was just then ordered in for a refit, and to repair some damage on deck, caused by a mine which burst on the surface close to her, when struck by a shell. This refit gave me another fortnight in which to re-

cover, and I was in fairly good form by the end of June when we left Southampton.

While we were refitting the C.O. resigned his commission, and joined the R.A.F., in which he did extremely well. Before many months, however, had passed he was killed while testing a machine. Had he lived he would have gone far, as he was an exceptionally clever man, who made an outstanding success of anything he took up. He was sincerely mourned by his friends, and the Sea Scouts to whom he had devoted the latter part of his life.

His place was taken by Haig, who was appointed to the command, to the joy of all on board. Haig was a fine seaman, and a good all round man, and was deservedly very popular. I then became 1st Lieutenant with Lt. Klugh R.N.V.R. as second officer.

On leaving Southampton we made for the mine-field near the Swarte Bank, and spent several days completing the sweep. A few more mines were swept up and destroyed. Two of the sweepers also pulled the mast out of a submerged wreck. It appeared to belong to a small ship about the size of a trawler. We never heard what vessel had been lost there, but it was probably one of the trawlers described as "missing," which usually means "lost with all hands."

On this occasion we did not sweep, but followed the sweepers, and sank any mines which were cut off, and also saw that the markboats anchored in the right positions. This work suited us very well, as it enabled us to pick up some fish from time to time, when, as sometimes happened, mines perforated by a rifle bullet or shell, sank, and burst on striking the bottom. When this happened it was usual to steam up to the spot, if time permitted, and wait for



CAPTAIN W——, R.N., SUPERINTENDS THE SALVING OF A MINE



**A TICKLISH OPERATION,
EXTRACTING THE DETONATOR**



**ENG. SUB. LIEUT. WEBSTER, R.N.R.,
EXAMINING A PRIMER TAKEN FROM
A GERMAN MINE**

the fish to rise. A large circle of sooty water would form round the spot where the mine had exploded, and soon the white forms of dead and stunned fish would be seen shivering upwards to the surface.

Sweeping off Southwold, the Would, and the Thames Estuary followed, our part being to look after the markboats usually, and to follow the sweepers to destroy any mines they might cut off. It was all routine work, interesting only to those engaged, and not worth recording, one day being very like another. Occasionally we were sent off to look for submarines which had been making themselves objectionable by sinking ships, smacks more often than not.

When sweeping in the Thames Estuary two very ancient mines were swept up, and a boat was lowered, and a party sent to examine them. They were much battered about, with big dents in their sides and bent horns. With some misgiving, for they were unhealthy looking things, they were turned round and searched for marks, but none could be found. By the united efforts of the boat party and a trawler, which came up, they were sunk by rifle fire after a protracted engagement of nearly two hours.

These mines were supposed to have been countermined by the explosion of others in their neighbourhood, and the detonators must have been put out of action in some way, or have been defective to start with. Perhaps it should be mentioned that German mines are fired electrically by a battery which becomes active immediately any of the four, or in some cases five, horns on the mine are bent. These horns are of lead with a strengthening brass band, are hollow, and contain a glass tube of liquid. As soon as anything strikes a horn sufficiently hard to bend it the glass tube breaks, and the liquid runs

into a battery which at once becomes active and fires the charge. The whole thing is practically instantaneous.

Shortly afterwards came the first bombardment of Zeebrugge, if a reported unofficial bombardment by two trawlers be excepted. These trawlers were out a long way over looking for submarines. Day followed day and they saw nothing, and to relieve the monotony they decided to go in and bombard Zeebrugge, in the hope of inducing some submarines to come out. Accordingly at dusk one evening they appeared off the harbour, and opened fire with their 3 pdrs. The Germans suspected a trap and lay low, and the harbour remained silent and apparently deserted. In no way discouraged the trawlers maintained their fire, and then, as nothing came out, they sank a buoy in the harbour entrance, and moved off in single line ahead. The night was very dark, and after a time the leading trawler lost sight of the second one, and thought it had dropped behind. It therefore stopped, and was promptly rammed by the other which, though invisible, was close astern. However the two Don Quixotes managed to get back.

To return. Three monitors were to do the firing, and they were to be escorted by about 80 small ships of various types, T.B.D.'s, sweepers, and drifters. The general idea was for the sweepers to precede the others, and to wait for them in a position given. As soon as the monitors appeared part were to continue sweeping ahead, while some cleared a passage for a ship loaded with an observation tripod, which was to be placed in position as near to the coast as possible. The monitors would then take up their station, and the little drifters, connected together by detector nets, would form a zariba round them.



**THE MINE LASHED DOWN ON DECK ON ITS WAY IN FOR
EXAMINATION BY THE EXPERTS**



THE A.M.S. AT REVOLVER PRACTICE

We left Harwich with the other sweepers in the evening before the bombardment, after landing the confidential books, and taking all the glass out of the bridge in case we were shelled. The first thrill occurred soon after passing the Sunk L.V. when a destroyer signalled that there were four T.B.D.'s ahead which had not replied to the " challenge " and were believed to be hostile. They proved, however, to be a British patrol. The next thrill, or " panic," as such events were usually called, was a W/T message to look out for Zeppelins. At the same time that this message was coming in intensely bright magnesium lights started dropping from the clouds to the southward, which were assumed, probably correctly, to have been dropped by airships. If so they missed us by about ten miles.

At 1 a.m. we had swept up to our appointed position, and anchored to await the monitors. It was rather dark, but we could just make out a number of ships steaming about in different directions, and trusted that they were friends. They were most likely T.B.D.'s keeping the ring for the monitors. After a wait of an hour and a half the monitors and their attendant craft were reported close at hand, and anchors were hastily hove up, and sweep wires passed. The usual way of passing these across from one ship to her partner was for one of the two ships to steam slowly on a steady course. The other ship then came up astern close enough to throw over a light line. To this was attached a grass warp, and, when the first ship had hauled the end on board, the second ship attached the sweep wire to it, and the warp was hove in on the steam winch, and the wire brought on board and secured. The two ships then opened out to their proper distance, usually 400 yards. It

had occurred to me at one time that, as in rough water it was sometimes awkward for the two ships to get near enough to enable the line to be thrown from one to the other, it would be an advantage if it could be shot across attached to an arrow, but the dreadful consequences which might be expected to result if by an unlucky chance an R.N.R. Officer were to shoot an R.N. Officer on his bridge with a bow and arrow had to be considered, and the idea was not followed up.

On the present occasion it was not an easy matter to pass the wire, time being short and the night dark. However, it was managed in the end, and we went off for the coast with the huge monitors lumbering along behind us. On arriving at the position from which they intended to fire the latter stopped, and, while some of the sweepers, including our ship, continued sweeping up and down and round them, four others went on towards the coast ahead of the tripod ship. They got fairly close in before they were driven back by the guns on the shore. None of them were actually hit, but, curiously enough, the kites of three out of the four of them were shot away as they were being hove in. The tripod ship also got safely away, after successfully placing its load, and leaving observers on the post to report the fall of the shots. A plucky little drifter stood by to fetch them away when the firing stopped.

At 5.30 a.m. every one was in position, the observers on their post close in to the shore; about 9 miles out the monitors surrounded by the zariba of detector nets, outside which the T.B.D.'s roamed in circles; while overhead seaplanes slid about keeping an eye on things in general. The firing started. After a short interval the observers' lamp winked furiously.

The shell had fallen, and they were reporting to the gunners. Again the guns spoke, more signalling followed, and then the monitors got into their stride, and continued firing, one ship at a time, until two of them broke down. Their targets were the submarine base, and the lock gates.

After two and a half hours' bombardment firing ceased at 8 a.m., and the flotilla moved off, the sweepers first, followed by the monitors between two lines of drifters, with T.B.D.'s outside them.

The whole affair was most admirably planned and carried out, everything went like clockwork, but we never heard what was the result of the bombardment.

It is much to be regretted that for, some no doubt very good reason, these bombardments were not persisted in until the locks, canal, and submarine base were reduced to utter ruin. As it was, the Germans were able to develop the port as a submarine and destroyer base, and cause us infinite loss and annoyance. Something must have stood in the way, or it would undoubtedly have been done, it was so obviously desirable.

After some sweeping off the Dogger Bank the A.M.S. came away in September to try for mines towards the Thames Estuary. Off Southwold we took the end of a paddle-sweeper's wire, and started south with another pair on our quarter. The course took us close to the buoy at the north end of the Shipwash Sand, and on getting abreast of it the wire parted. It was in process of being hauled in—a slow affair with us as we were not properly fitted for sweeping—when a muffled explosion occurred astern, and we saw that a cargo steamer, which had been following us, had struck a mine in the very place where our wire had parted a few minutes before. The

survivors of the crew lowered a boat, scrambled into it, and got away. The A.M.S. ordered us to turn and steam towards the sinking ship. Off we went swinging out the boats on the way. Right ahead of us was a patrol trawler also making for the scene of the disaster. Our ship was the faster of the two, and we were rapidly coming up with her when she also struck a mine, her bows were blown to pieces, she canted forward, and sank in ten seconds with her propeller still revolving. Before the rain of fragments had ceased falling she had gone.

Our engines were stopped, and the boats lowered as quickly as possible. It seemed impossible that any living thing could survive that awful smash, but we presently saw men in the water among the wreckage floating about on the surface. The boats made towards them as fast as they could be driven through the water, picked up all they could see, and returned immediately bearing six living and five dead men. All the survivors were suffering from shock, their faces had a bluish tinge, and they were shivering violently. A few were able to climb up the side with assistance, but those badly injured were quite helpless, and great difficulty was experienced in getting them on board. One or two had fallen under the thwarts, and lay in the bottom of the boats. I remember one, in particular, who lay on his back, and gazed fixedly at anyone looking over the side. He was conscious, but unable to realize what had happened, or where he was, and the puzzled grave look in his eyes seemed to demand an explanation from those he looked at.

The Doctor supervised the work of getting the injured up the side, and on board, but in spite of every care they must have suffered agonies, and we were cordially in sympathy with our burly second engineer,

who loudly cursed the Hun and all his works, particularly his habit of strewing the seas with submerged mines.

As soon as all were on board and the boats hoisted, we made for Harwich at top speed, sending in a W/T message to ask for the hospital boat to be waiting for us on arrival. It came alongside before we had anchored, and relieved us of our sad burden.

The poor little trawler had very bad luck in striking a mine while proceeding to the assistance of the cargo ship. She lost eight men out of fourteen : the cargo steamer lost three.

Her misfortune was, in all probability, our salvation, as we were right astern of her when the accident happened, and if she had not been there should almost certainly have struck the mine which destroyed her. And that was not the only escape we had that day, as we must have been very close to the mine which sank the cargo ship. It was then slack low water too, the most deadly time. The ship's luck held.

Next day we returned to the same spot, but were much delayed by the frequent parting of the sweep wires. The ground was very foul, and full of sunken wrecks, which caught the wires as they passed and cut them. While struggling along with the job as best we could, a tramp steamer closed, and reported a mine awash and showing on the surface in yesterday's position. To minimize the risk of losing, the ship by taking it in the A.M.S. sent our big motor-boat with a rifle party to destroy it. Every care was to be taken, as there might be others also awash, or just below the surface. The boat soon found the mine, and started firing. A short sea, however, handicapped them very severely, as it kept the boat continually

dancing about, and made it a very bad gun platform. "Crack, crack, crack," went the rifles, and still the mine, though hit, bobbed defiantly about. Moreover, the tide was rising, and the target was becoming submerged, and smaller every minute, while the ammunition was running out. Desperate measures were plainly necessary, and when only three rounds remained the boat closed to within 40 yds of the mine, and fired them off. It was snap shooting, pure and simple, the target only showing at intervals, while the boat was in continual movement. They all missed.

Later on in the day, after we had left the spot, a trawler steamed across the danger area, and struck a mine which simply blew her to pieces. Ten out of fourteen men were lost.

On the following day when we were just starting to sweep, a large collier of about 3000 tons was seen to be heading for the danger area. She was too far off to see any flag signals we might have hoisted, and the only way to stop her was to fire a shot across her bows. This was accordingly done, but the collier took no notice and went on. She approached the spot and got well across, so far indeed that it looked as if she were clear, but no, there was a sudden upward burst, and water, smoke, and debris shot into the air. She had struck a mine amidships.

By the time we had reached the spot the crew, or what was left of them, had abandoned the ship, and were lying on their oars a short distance away, watching their vessel cant slowly to port, and turn half round. A paddle-sweeper picked them up, while we lowered a boat, and boarded the collier to see what damage had been done, and whether it would be possible to tow her in. The wind was freshening,

and a sea was getting up, so that anything that was to be done must be done quickly. We scrambled on board, and found the deck amidship in a rare mess, and covered with bits of iron, rivets, and fragments of a boat, the stem of which still hung in a davit. The derricks were all unshipped, and lay about at all angles, while everything had been thrown down on the bridge. While we were taking stock of the damage, and some of our lads were eating the lukewarm breakfast which they found prepared aft, the ship's skipper returned with two hands, and reported that three of the engine room staff were missing. The engine room and stokehold were found to be full of water. If the missing men were in there they had been killed, and there was nothing to be done. The skipper, who was naturally upset at the loss of a fine ship, and some of his men, at once left. He saw no object in remaining in a sinking ship, which might for all he knew drift on to another mine at any minute.

The ship then began driving, with wind and tide, towards the minefield, and an anchor was let go to hold her in position, as if she once got there the towing ship would not be able to get at her without great risk. As a matter of fact it was becoming more evident every minute that she could not be towed in and beached, as the weather was getting steadily worse, and the ship was sinking, slowly but surely. She was dry forward and in the starboard ballast tank, but was badly holed on the port side amidships, and the engine room, stokehold, and port tanks were full of water. It was only a question of time before the aft bulkheads went, and when this happened she would sink rapidly. The seas were then washing over the gunwale aft, and the boat could no longer lie

alongside. It had to be passed aft on a painter with two men in it.

At this point a message was received from "Sagitta" to prepare to slip the cable, and to stand by to take a warp. This meant that the towing idea had not been given up. By the time, however, that the towing gear was ready the deck aft was under water, and the order came, "Leave her." She was to be left to her fate, a brand new ship full of good gear. However, there were no means of saving her, and she had to go. Reluctantly we filed aft, taking the driest way over the top of the hatches, but having occasionally to wade through water thigh deep, to where the boat was waiting. It could not get right alongside, as the seas were then creaming over the poop, and we had to jump for it. One man fell, and put his knee out, besides cutting his head, but all the others got in safely. We also brought off a very wet and unhappy cat which was found on board. Quite a steep sea had in the meantime got up, but the lifeboat went to windward well, and we refused the offer of a tow pressed on us by a drifter. She came round time after time, towing a lifebelt at the end of a line for us to pick up, and seemed much distressed at our refusal to have anything to do with it. It appeared afterwards that the A.M.S., thoughtful for others as always, had told them to pluck us up to windward, and that explained their persistence. Everything was ready for hooking on and hoisting when we got alongside the ship, and every one, not on duty below, was at the falls, including even the stokers. Indeed the Admiral himself came and lent a hand. As soon as the boat was out of the water she started surging about, and received some shrewd bumps, but no real damage.

Sweeping was then given up for the day as the sea was too rough, and we all returned to Harwich, where the A.M.S. left, while we sat down and recovered our breath, so to speak.

A rather dull time followed, during which we swept for mines off the Dogger Bank, but found none; attended, in the capacity of escort, one of the new Flower class sloops on her steam trials; and assisted at the shifting of the war channel buoys in the Would. Later we returned to the Dogger Bank, and that time got about a dozen mines in a week. On another occasion, in company with two old gunboats, and two of the latest T.B.D.'s we took the A.M.S. to the north end of the Dogger Bank. It was proposed to make a trial sweep there, but as it happened the weather was rough, and the sweepers were left behind, but we went on as a raid was expected on the fishing fleet. Possibly the rough weather upset the scheme, as we did not see any raiders, and after plunging about in a heavy sea for a day and a night we went in again. It was very unlikely that the Germans would be out in such weather, though there was always the chance that they might be. As a rule they chose quiet weather for their raids, and if there was a slight mist they liked it all the better. Presumably the idea was that they could steam faster in smooth water and get to their objective, and back again more quickly, while a mist would help them to evade our ships. On the other hand, in rough weather the superior sea-going qualities of our vessels would give us the advantage, both in catching them, and in tackling them when caught.

Three or four other attempts were made to bring off this trial sweep on the Dogger Bank with paddle-sweepers, but bad weather always came on and drove

them in before anything had been done, and it was finally decided to use trawlers. The latter can sweep in practically any weather. By way of escort, as there was still talk of a raid, three trawlers, each armed with a 3pdr., and "Sagitta" were to accompany them, not a very powerful striking force in the event of hostile T.B.D.'s being met with.

The weather was still rough when we left one afternoon just before dark in company with nine trawlers, and as soon as we were clear of the entrance we found a strong wind and a fairly big sea. The trawlers plunged gamely ahead in a long line, lifting their high bows right out of the water on the up heave, and then crashing into the trough and sending the spray flying freely all over them. They are fine seaboats, but being small, about 300 tons, are, of course, wet. On that occasion steaming at full speed into a head sea, they buried themselves a good bit, and were very wet.

In spite of the fact that we were more than twice as big as they were, we did not find things any too comfortable either, and we bumped into the seas to some tune. The stokers, who lived right forward in the fo'c'sle, had to watch their opportunity if they wanted to get from their mess to the stokehold without being drenched. A head would appear in the hatchway, and its owner would wait there until the ship had steadied down for a few moments when a rush would be made across the fo'c'sle, down the ladder, and along the main deck to the stokehold. Those on the bridge were always interested in watching these manœuvres, and at times, if the sea were very heavy with a lot of water coming over, and circumstances permitted, the officer on duty would

slow down at the change of watch to give those coming on, and those going off, a chance of getting to their destinations moderately dry.

During the night the line of trawlers had become very much extended, and at dawn only four were in sight. In an hour, however, we came up with the others and sweeping started at once, in spite of the rough sea.

While sweeping was going on under the direction of a Lieut. R.N.R., the three armed trawlers, which were under Haig's orders, and " Sagitta," steamed around, sometimes ahead, sometimes on the beam, keeping a watch on things in general, and a very careful look out for airships, which we had been told would most likely precede a raid. The Boche was a wily bird, and he liked to be quite sure that it would be fairly safe for him to be " frightful " before he appeared on the scene. By sending airships ahead he could be certain that there was nothing capable of hurting him within 70 to 90 miles, and that he might venture out and sink a few fishermen. The calm indifference with which our fishermen seemed to regard him was most striking. It was either contempt or a high form of courage. Dozens of trawlers had been sunk by mines, submarines, or raiding surface craft, and yet while making this sweep at the end of 1915 we met many groups working on their accustomed fishing grounds, without any escort, 70 to 80 miles off the coast, as if no war was raging, and things were quite normal. It is true that they were making a lot of money, but even so there was something fine about their attitude, and they kept at it, or rather the survivors did, for their losses from one cause or another were fairly heavy, all through the war, with crews consisting largely of old men

and boys, who replaced the young men drawn off to feed the fighting forces.

Each day at dusk sweeping stopped, and in order not to lose the position during the long night of thirteen hours' darkness, the officers' ship anchored, and showed a light, which the rest of the sweepers kept in sight, steaming slowly or stopping as necessary to maintain their position. The armed ships, if it is permissible to call a trawler with a 3pdr. gun an armed ship, steamed about on the fringes of the crowd.

It took five days to cover the area planned, and during the whole time the wind kept high and the sea rough. Only trawlers could have swept in such weather. No other class of sweeper could have stood it. Though the trawlers managed to sweep they made slow progress, about five miles an hour, covering from 50 to 60 miles each day. No moored mines were met with, but we came across a number of floating British mines which were sunk by rifles or gunfire. The orders laid down stated that ships engaged in sinking mines were not to approach within 200 yards, but we found it quite impossible to hit them at that distance with the sea that was running and were compelled to get nearer. There was no risk in so doing with English mines of the type then in use, as they were invariably safe when on the surface. The type in use at the end of the war was not quite so reliable in this respect, as if they had been down for some time marine growths were apt to interfere with the working of the safety device.

One small "panic" occurred during the sweep. One day one of the armed trawlers had mysteriously disappeared, and we had failed to get into touch with it. It had simply vanished, and no one knew where

it was. That night a tiny green light showed up for a second miles away on the horizon. This was a signal agreed on with the armed trawlers and meant " Armed ships close me." Off we went full belt with all lights out, and the ship carefully darkened. It was quite exhilarating. We crashed along, buried in spray, with the guns' crews sheltering as best they could under the break of the fo'c'sle. We judged that these green lights, which flamed up every few minutes, came from the missing trawler, but we had no idea why she was firing them. She might be in trouble of some kind. Possibly she had met a submarine, and her little 3pdr. had proved no match for the submarine's two 22 pdrs. ; or the ship might have been sunk by a T.B.D., and the crew were firing Véry lights from their boat ; or again they might merely have lost themselves, and considered that the simplest way of getting into touch with the rest was to fire rockets and wait for some one to come to them. It was impossible to say what had happened, and in case it was something serious we urged the engine room to redoubled efforts in an attempt to increase speed. After steaming nine miles we were nearly up to them, and the guns were manned. They were still firing lights as we had not cared to reply to their signals in case we scared away a hostile craft.

" Trawler ahoy. Is anything amiss ? "

" No, sir."

" What does your signal mean, then ? "

" I have been standing by a mine all the afternoon waiting for you to come and sink it." All our trouble for nothing !

" Follow me," and back we both went to where our bunch were drifting about, waiting for the dawn.

That was the only excitement we had, and having completed the programme we returned to the Humber and afterwards to Yarmouth.

We were next ordered up to Hull, and, as Haig was in his bunk with what afterwards turned out to be pleurisy, I took the ship up. There the A.M.S., who had been appointed to the Cape Station and was about to leave for there, came on board, and brought with him the new A.M.S. to show him the ship.

There was a thick fog the morning they came on board and I hoped that they would wait for it to clear before starting. Admirals, however, are not in the habit of waiting, and when I was asked if it would be possible to get to Grimsby I replied cheerfully that it would, well knowing that we should have to go in any case. The navigable channel at Hull is about 300 yards wide, and winds about a good deal, and as one could not see more than 40 or 50 yards, if so far, the chances of getting on to the mud were considerable. That must be avoided at all costs. It would never do to put the ship, with two Admirals on board, on the mud. Such an event would never be forgotten against the C.O., even though he was lying helpless in his bunk, and had nothing to do with it. He was on board, and was therefore responsible.

As it happens the river is well buoyed, and one of these buoys was about 100 yards ahead. If we could hit it off, there was a chance that we might be able to steer from buoy to buoy, and get safely down. Three chief factors governed the affair: the correctness of the deviation card; the accuracy of the course steered; and the set of the stream. The first was fairly reliable, and as for the second our best helmsman was put on. In peace-time he was a wealthy shipowner, but for the early part of the war, until

1917, he was an A.B. In that year he took a commission. As regards the last factor, if we went at a fair speed we should not be much put out of our course, even if the stream set across the mudflats.

All things being ready, the Admirals comfortably installed at lunch, the courses from buoy to buoy, and the time required at ten knots, worked out, a look out right forward in the eyes of the ship, a leadsmen in the chains, and two hands at the sounding machine, I gave the order in as hearty a tone as I could command to "Heave in." Off we went. Now should we find the first buoy? The whole thing turned on that. "Buoy, close to, on the starboard bow," from the look out. Splendid! Now we had a chance of getting through. A. Swann, who had also started as an A.B. but who was by that time an officer, Sub-Lieut. R.N.V.R., stood by the helmsman, with a notebook in one hand and a watch in the other. He was smiling and cheerful, and looked on the affair as most amusing. I must say that I like cheerful people about, especially when things are a bit difficult. He crossed off the buoys as we passed them, noting the time, and gave me the course for the next one. On the main deck the two hands at the sounding machine laboured incessantly at taking continuous soundings, while every two minutes the siren split the fog with a nerve shattering wail. This was often followed by the frantic striking of the bell by some ship at anchor. Little we cared for ships at anchor. We were long past that, and merely regarded them as a kind of buoy, and an indication that we were still in the channel. Not wishing to get off our course we shaved them, and their anchor-watch was startled to see a long grey ship surge past at ten knots within a few yards.

Twice the A.M.S. left the luncheon table, and came on to the bridge to inquire how we were getting on, leaving at once as soon as he learned that we were all right so far. He did not want to distract our attention by remaining. He was always extremely considerate, and the thought that he was leaving us cast a gloom over the whole ship. All had been proud to serve under such a chief in no matter how humble a capacity. He trusted us, and never interfered in any way with the navigation or anything else, though he helped us out of many a difficulty, and we had grown to regard him with deep respect, admiration, and, indeed, affection.

Once towards the end of the passage I got a bit of a shock, as I judged by the shape of a buoy, as we swept past it, that we were on the wrong side, but it was a false alarm, luckily.

After lunch both Admirals came on the bridge and inquired where we were, and on learning that we were off Immingham to the best of my knowledge and belief, it being impossible to see anything, decided to land there instead of going on to Grimsby. The ship was therefore anchored, and a boat lowered, and sent in to see if they could find the jetty. They steered a compass course in and found the place all right, and on their return the two A.M.S.'s left, but it was the new A.M.S. who gave the orders, the other had handed over the reins, and was no longer A.M.S. He took with him the sincere good wishes of the entire crew.

We then went into the Dock, and a Fleet Surgeon, and his Number One, came on board to consult with our Doctor over the C.O. It was decided that he had pleurisy, and that he must be landed for treatment. In due course off he went, attended by his

faithful friend Swann, wrapped in blankets to his eyes, for a fortnight's nursing, though it was actually close on three months before he was able to come back. The A.M.S. instructed me to take command in Haig's absence, and Lieut. M—, R.N.R. was lent to the ship to assist me. M— held an Extra Master's Ticket, and in peace-time coached Mercantile Marine officers for the Board of Trade examinations. One day an Admiral heard that we had a Board of Trade coach in the ship, and he declared that to send such a man to sea was the cruellest thing he had ever heard of. " He will never know where he is. He is sure to get lost."

Surgeon Alan Moore also left at this time, and was replaced by Surgeon Probationer Beswick. The former could not stand the sea. We were sorry when he went as he was so unconventional and original in his remarks. Once we were discussing some abstract question at table. Moore took no part in the talk, and when it was over said " This talk is like trying to make a pencil mark round a fog." Though he was an authority on the rigging of ships in the middle ages, he was certainly no mathematician, and when some one referred to compound interest he listened with a puzzled expression for a time, and then burst into the conversation. " Ah, I know what you are talking about. You are talking about those funny shaped sums." A new way of identifying sums.

From the Humber we went to the Thames Estuary to work with the paddle-sweepers, who were labouring without a pause to keep the channels into the Thames clear of mines. On the other hand the Germans sent submarines from the base at Zeebrugge almost nightly, and laid fresh ones as fast as the old ones were swept up. The struggle between the two went on un-

ceasingly, and many a ship went down with more or less heavy loss of life before the Zeebrugge mine-layer was mastered. At times there was not a single clear channel into the Thames, and all traffic had to be stopped until the sweepers could clear a passage. The two main things were to sweep a narrow lane for the merchant ships, and a passage into Harwich for the light cruisers and T.B.D.'s. The rest of the estuary was swept when possible. It was regarded as dangerous water, and was not used by merchant ships, but only by patrols which took their chance.

The trip down from the Humber, made in company with a paddle-sweeper and six captured German trawlers, which were to serve as markships, was very unpleasant. There was a strong N.E. wind, and it was very cold. While it was light we got on fairly well, but the night was pitch black, and a snow storm came on which made it impossible to see anything. The paddle-sweeper at the head of the line kept on stopping to take soundings by hand—he had no sounding machine—and whenever this happened the rest of us, not being able to see what was taking place, bunched up on him, and became most wonderfully mixed up, and spread about. The "Sagitta" was the last ship, and she had orders to see that no one got left behind. Owing to the inky darkness of the night, and the snow squalls, I very soon had no idea whether all the ships were there or not, but went on, hoping for the best. There were many narrow escapes from running down the next ahead during the night, and every one was glad when we finally anchored off what was supposed to be Southwold. That is where we should have been according to calculations, but there was nothing to show whether we were there or not. The dawn,



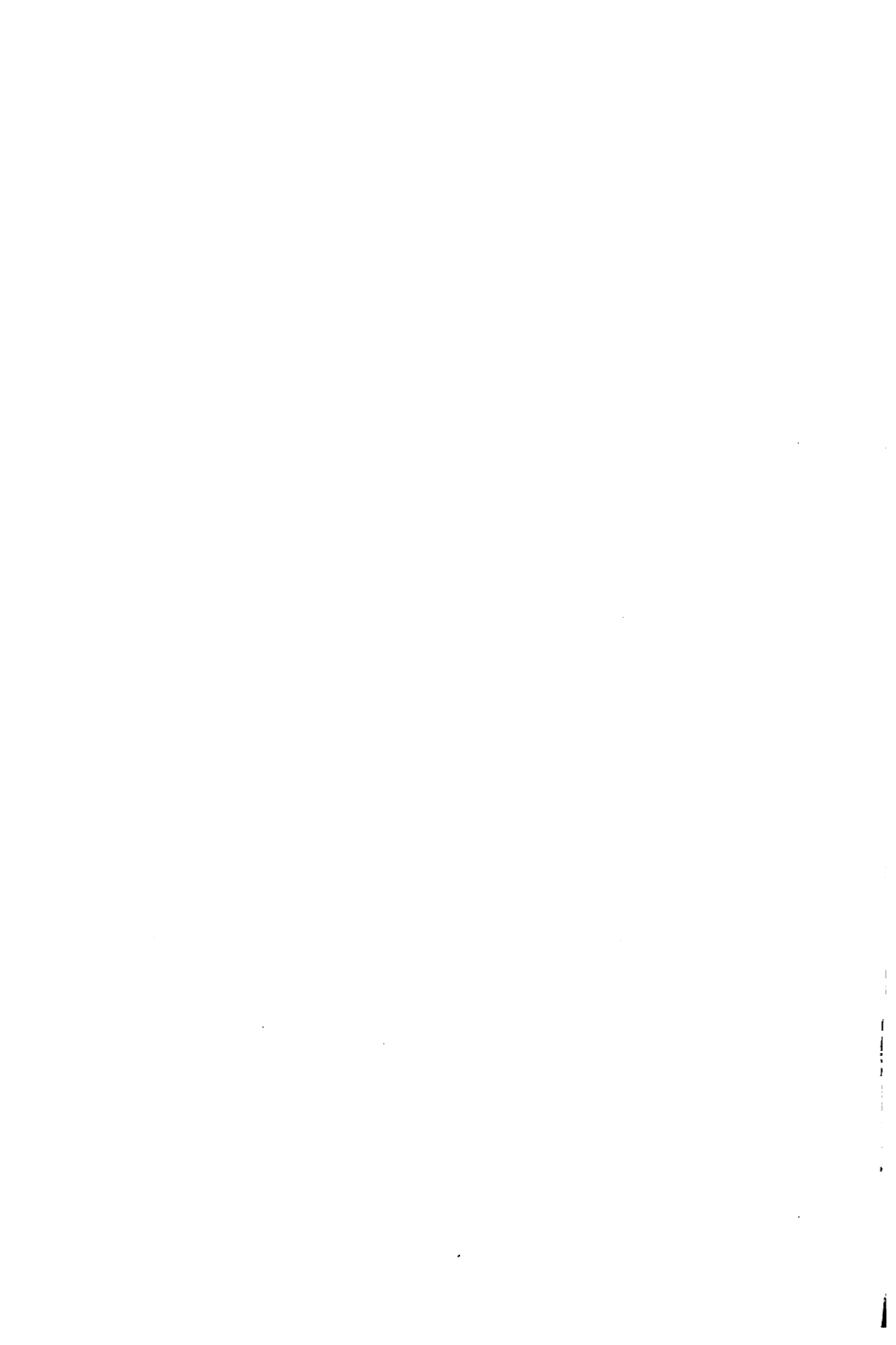
H.M.S. "SAGITTA" IN TIMES OF PEACE



A GERMAN MINE EXPLODING



A MINE EXPLODING ON THE SURFACE



however, showed us to be off the town all right, but rather far out.

During the next few days sweeping went on inside Aldborough Napes. Our part was placing the markships and destroying the mines swept up, of which there were only two. One of these bobbed up just at dusk one evening, and we were left behind to sink it, and were told by the Senior Officer to rejoin him at the anchorage as soon as it had gone. As the light was bad this took a little time, and then it occurred to me that the S.O. had not said where he intended to anchor. However, I had a general idea and pushed off. On the way I was pleased to see one of the paddle-sweepers with a markship astern, as he was sure to know where the others had gone. I therefore steamed after him. The helmsman reported in a few minutes that he could only keep astern by giving full helm. This was very strange. A signal made to the sweeper elicited the fact that he did not know where the others were, and that he was following us, as he thought we were sure to know! We had been steaming after each other in circles! Under the circumstances we decided to anchor.

A few days later the new A.M.S. came away to witness the operation of sweeping. He was very anxious to see a mine cut off by the wire and come to the surface, but, though in a very likely place, not a single mine was found during the three or four days he was with us. As it happened the sweepers came across some the day after he had left. We were then on the way back to them after landing the A.M.S. On the way we passed a T.B.D. steaming north. She carried a blackboard on which was written in large letters in chalk " All traffic is to avoid the area enclosed by — " and then followed the latitudes and

longitudes. This notice she showed to all merchant ships she passed. The warning did not apply to us, of course, and, indeed, it included the very spot where we had been told to meet the sweepers, and we went on. At the rendezvous we found two paddle-sweepers from Sheerness, which had come to join our group, and together we hunted for the others. The afternoon was foggy, or "thick" as one says at sea, and we did not find them at once as it was not possible to see further than half a mile, but eventually we found them sweeping at the other end of the line. As we came up two mines were brought up, and were sunk by a T.B.D., as was also another one which was cut off right astern of us. We cannot have missed it by much. It made me a bit thoughtful, as I was specially anxious that the ship should not be blown up while Haig was away. The matter was hardly in my hands, however. It was a question of luck, and "Sagitta" was one of the luckiest ships that ever floated, or so they used to say on the East Coast. Luck is a queer thing. There is no accounting for it. Some ships seem to have it, and some haven't. "Sagitta" was uniformly lucky, and especially at this period of her career, when she was in the thick of it. It is extraordinary that she was never blown up. Another instance of luck occurred a few days later. At that time the markships were under our orders, and, after sweeping stopped at dark, we used to take them in to any convenient anchorage, usually somewhere outside Harwich, and bring them out again next morning. The sweepers, having twice the speed of the markships, used to go in to Harwich every night, telling us where to meet them in the morning. One day the rendezvous given was at a certain Light Vessel. It was a thick morning and on arrival at the

agreed spot no sweepers were to be seen, nor did we get into touch with them all day. W/T messages were sent, giving our position and asking for instructions, but though they were accepted no orders were sent, and we, with the markships in attendance, remained drifting about near the Light Vessel all day. Just before dark we moved off for the anchorage. On the way in a W/T message was intercepted saying that one of our group of paddle-sweepers had struck a mine while returning to port on the track which we had taken. She sank with heavy loss of life, two-thirds of her crew. As she only drew 7 feet of water, while we drew 15 ft., and the markships from 11 to 12 feet, it is an extraordinary thing that we should have got safely through, and that she should have been blown up. It is, of course, possible that the mine which destroyed her was a floater, adrift from its mooring, which got under her paddle-box.

This event threw a gloom over every one, but sweeping went on next day as if nothing had happened, though there was one ship short. Three paddle-sweepers had now been lost out of our group. One was lost off the Belgian coast, while sweeping at night, and the ship which was sent to replace her was blown up the first day she started work, and now another one had gone.

The work was a good deal interfered with about this time by fogs. Some days it was too thick to see the marks, and sweeping had to be given up. On one occasion work had been going on during the morning, but at 2 p.m. a dense fog came up and put a stop to it. We were told to collect the markships, and take them to an anchorage. Off we plunged into the blanket of fog, and duly found the first ship, but could not find any of the others. We

steamed here and there, stopping to signal at intervals on the siren, but not a sign could we see of one of them. After an hour the search was given up, and a course laid for a Light Vessel, which marked a dangerous shoal to the northward of her. Two miles to the southward was an area known to contain mines. The idea was to run in between the mines and the shoal, but where exactly were we? We had been in a strong tide for hours, steaming in various directions, and stopping at intervals, and, to be honest, I did not know where the ship was within two or three miles. If the course laid off to take us in was too much to the south, we should get in among the mines, while if it was too much to the north we should bump a sand-bank. If we hit a mine a lot of lives would be lost, while if we hit the sand we ought to get every one away safely. I decided to make the Light Vessel if possible, but to keep, if anything, a bit to the northward, and away from the mines. Nasty things, mines. Off we went, sounding all the time, but, having run the distance we still could not see or hear the Light Vessel, and I anchored the ship while we were yet safe. The sea was calm, and it was unlikely that any traffic would be moving about in such a fog, as the district was a mass of sandbanks. There was therefore no particular reason against anchoring. Next morning, which was clear, we found that we were two miles to the north of the Light Vessel, and could see that if we had gone on, the night before, for another three or four minutes we should have been ashore on the bank. It was lucky we anchored when we did.

On Christmas Day I made myself unpopular with the Senior Officer by failing to see his signal to weigh anchor, and remaining behind with the markships

when he left the harbour. He was back again by noon, either because he could not get on without the latter or because there was too much sea. He made me a signal on his return, instructing me to give my “ reasons in writing ” why his order had not been obeyed. I explained that it had not been seen ; that the ship was anchored $1\frac{1}{4}$ miles from him, and that the harbour was full of vessels, some of which were between him and me. Presumably the explanation was accepted as nothing more was heard. As a matter of fact the quartermaster had been told to keep a sharp look out for a signal, and I had been surprised at not getting one, and had wondered why it was.

Next morning one of the sweepers sighted a periscope on the run out, and the S.O. hoisted a signal “ Scatter in search of submarine.” The rest of the morning was spent in looking for it. As time went on, more and more ships turned up to help, until there must have been thirty or forty ships altogether, of all classes, from the latest destroyers to the gay little drifters—so called as in peace-time they fish for herrings with drift nets. It was a most animated scene and a pleasant change from shifting markships and sinking mines, and not without its humorous side either. One little torpedo boat came rushing up foaming at the mouth. On arrival it stopped, and hastily got an explosive charge over the stern, with which to sweep for the submarine. Unluckily in lowering it over the side a turn formed in the cable which got round the propellers, and the T.B. had to be ignominiously towed back into harbour by a trawler.

This little chase, which was probably more pleasing to us than it was to the crew of the submarine, though they got away without being caught, was the means of getting me into more or less of a scrape with the

authorities two days later. We were steaming out to the sweeping ground, with the markships astern. When within two miles of the spot where the periscope had been sighted a couple of days before, a periscope was again reported on the beam. There it was, sure enough, and moving through the water at a fair speed. It appeared to belong to an enemy submarine, probably to the one chased previously. If it were a British submarine there would be an escorting vessel we argued, and there was not one in sight. Fire was therefore opened with the 12pdrs. and we turned towards it and prepared to ram. The trawlers raced after us, like a pack of terriers, blowing their whistles, and steaming as fast as ever they could. As we approached there seemed to be more of the periscope visible, and a few seconds later several feet of it were out of the water. The submarine was plainly coming to the surface, either to surrender or because she was British. I altered the helm so as to clear her, and stopped the engines. Up she rose, and the top of the conning tower became visible, and then the upper part of a letter and a number appeared, and the letter did not look like a "U," no, it was "E," "E23." A British submarine! With a feeling of nausea I climbed heavily to the upper bridge, armed with a megaphone, to await what might befall. I had been within an ace of killing about twenty men, and did not feel at all happy. Slowly the submarine rose. The two ships lay motionless within 50 yards of each other. A hatch in the deck of the submarine opened, and an officer climbed out, and stood looking quietly round the horizon. We waited for him to turn our way, but he remained standing silently with his back to us, and seemed to be saying to himself: "I thought I heard something. I wonder what it was?" Still without looking our way, or taking the slightest notice

of us, he descended into the submarine, closed the hatch, and dived. We remained looking at each other and feeling very foolish. Round us lay the trawlers, stopped and rolling slightly in the sea. All their crews were on deck, and the head of the skipper of each stuck out from each wheelhouse. They watched us in silence, and were plainly disappointed at the way things had turned out. They seemed to think that it was a dirty trick of the submarine to be British, when we had got it so nicely cornered.

“ Signalman, hoist —— flag—(follow me)—please,” and off we went to rejoin the sweepers, who were wondering what on earth had happened to us. The incident had closed for the moment, but I expected to hear more of it anon, and in this was not disappointed.

A big explosion occurred under water in the sweep wire during the afternoon, which shook us all up a bit, and a lot of oil came up. The sound did not resemble that caused by the explosion of mines. A submarine had been sunk in the neighbourhood a few days previously, and it was thought that possibly the sweepers had pulled a mine on to it which had detonated its torpedoes in exploding.

One of the markships also hit some submerged object very hard when following us. We never found out what that was, though it may have been the mast of a trawler which had been blown up at the same time that the submarine was lost.

For a few days nothing of moment happened. Work went on as usual. Each morning sweeping started at dawn, and went on without cessation until dark, when the sweepers slipped the wires, hove them in, and returned to harbour, leaving us to collect the markships and take them in. These were usually anchored from two to three miles apart, and our

custom was to make for the furthest one, hoist "Follow me," and return up the line. Each ship weighed anchor as we passed, and fell in astern. Then our troubles began. The whole district was sprinkled with obstructions of all kinds, wrecks, sandbanks, and areas considered dangerous, and great care was called for when steaming in the dark as there were no marks to guide one, the lights of all lighthouses on shore, and light ships and light buoys at sea, being extinguished. There was one wreck which was a particular nuisance, that of a Dutch steamer which had been mined and which lay on its side showing 18ft. of hull at low water. It was right in our path to the harbour, and it was very difficult to pick out in the dark. However, somehow we always did manage to miss it, but I was uneasy in my mind until I knew that we must have passed it, and that it lay somewhere behind. Once that was astern the going was relatively simple until off the harbour entrance, when three acute turns had to be made. Though requiring care, these were not difficult to negotiate as, through our having asked permission to enter, the people on shore knew what ships were coming in, and the time they were due, and turned on leading lights to take us up the outer channel, and kept a searchlight trained on to the buoy at the last bend. Having got safely round and through the gate in the boom, there was nothing more to be done but find a billet in which to anchor. The harbour was usually fairly full of shipping, but by steaming slowly and keeping a good look out it was possible in the ordinary way to avoid running down ships at anchor even though they did not show a single gleam of light.

When in port a short time after our unfortunate little affair with the submarine, I had occasion to visit

one of the light cruisers to get the private signals. As I was leaving the Commanding Officer, who had been very pleasant in his manner, said :

“ Good luck. Don’t fire at any of our submarines.”

“ She was without an escort, sir.”

“ What, have you been firing at one ? I drew a bow at a venture.”

When he heard my tale he very kindly said that he thought I had done the right thing, and, indeed, would have done the same himself. This was most comforting to hear, and some form of encouragement was required when a long envelope arrived a few days later, containing a formidable looking document, headed : “ Reported firing on a British submarine.” Copies of the reports of various officers who seem to have been spectators, though we saw nothing of them, were given, and the A.M.S. had added a note at the foot of the document. “ For remarks.” I gave as clear an account as I could of what had happened, and the reasons why I had acted as I did, and sent the whole lot back, and never heard any more of the matter. Later on we met “ E23 ” herself, and sent them a signal apologizing for what had occurred, and received a cheery, though rather ambiguous, reply that not the slightest harm had been done. All’s well that ends well.

On the 31st December, 1915, Commander (or as he now was, Captain) W—— arrived, and said that a mine-layer, under a neutral flag, had been busy outside the Estuary, and that he was going out to see if he could find out where the mines had been laid. At first he said he would not take “ Sagitta,” as she drew too much water, and he was anxious not to lose any ships, three having been lost the last time he went out, but in the end, owing to one thing and another,

he decided to come out with us in her. While he was on board he received information that he had been awarded the D.S.O. at which all on board were well pleased, as all knew the excellent work he had done. He worked extremely hard, not sparing himself—or others—and all he did was done most carefully and conscientiously. He was also much liked and respected by the skippers and crews of the markships, chiefly owing to the care he took that they were not exposed to any unnecessary risk. Altogether we were always glad when he came away with us, as we knew that he would infuse energy into the proceedings, though we also knew that we should have to work jolly hard.

After some outside sweeping, which produced no result, we went off towards the North Foreland, where two ships had been blown up that day. No sweeping could be done by the time we got there, but next day five mines were swept up in a few minutes, one of which we very nearly drifted into as it unexpectedly proved to be still partially moored, though showing on the surface, and not floating freely as had been assumed. It was rather a close call, but by going full speed ahead with the helm hard aport, and then altering it to hard a-starboard, we just managed to kick her round the mine. We were unpleasantly near it, and for a few seconds it seemed as if we could not possibly clear, but we swung round it with nothing to spare. The ship's luck was becoming uncanny, but I drew strength and encouragement from it.

The run in that night to an anchorage in Margate Roads was an uncomfortable affair. The night was extremely dark, while there were no marks or lights on shore to guide one. We crashed on, and managed

to get in without running either on Margate Sand or on the rocks on the beach, but it was tricky work. During the night it blew a whole gale. The force of the wind was logged as " 10 " = 59 miles per hour, but it was off-shore and we were snug enough.

No more mines were found, and, indeed, no more were expected as seven had been accounted for, which was the number carried by the submarine of that period. The sweepers and " Sagitta," accordingly, moved off, and swept towards Harwich. One mine was brought up on the way. We tried to sink it with one of the 12pdrs., but the gun misfired. Swann, who was gunlayer on that occasion, vented his rage on a stanchion, which he kicked savagely. There is a certain amount of excuse for him as our 12pdrs. were always misfiring. They were fired electrically, and as spray was always flying over them the batteries frequently shorted, and ran down, or the contacts went wrong. The guns would be all right one minute and all wrong the next. The 6pdr. aft was, however, fired by percussion, and we got to work with that and hit the mine. It sank in a circle of dirty coloured water, without exploding.

No more were found, though sweeping went on until dark. We followed the sweepers and as we went along a signal was made from one of the ships to the effect that the Commanding Officer was unwell. His symptoms were signalled across. The Doctor was a bit staggered at being called on to prescribe for a man half a mile away, but having ascertained what medicines they had on board signalled what was to be done, and next day the patient was up and about. The prescription itself was simple and consisted of two words " Drink brandy."

Next day provided some excitement. The weather

being fair it was possible to do some work further out, and the paddle-sweepers formed up in the war channel and swept out past the Galloper Light Vessel. Just beyond it a mine was brought up, and was sunk. Were we at last on the track? No, nothing more turned up for some time. The sweepers steamed out for a few miles to the east, and then turned and made for the North Galloper buoy. When near it two mines were cut off and came to the surface, and then the fun began. Before anything could be done two more came up, and a few minutes later another, and another. We were in the thick of it, and to complicate matters still further the sweeper just ahead of us suddenly came full speed astern, owing, as we learnt later, to their sighting a mine in the sweep wire of the pair in front of them. This compelled us to go astern too, but we had to go ahead again immediately as there were two mines close under our stern. Captain W—— shouted to me to be sure to keep in swept water, but there was not much liberty of action as there were mines all round us. Moreover, the sweepers were turning eight points at the time the mines came up, and a strong tide was running athwartship, so that it was extremely difficult to decide what was, and what was not, swept water. The immediate thing was to get some of the mines floating round us sunk and out of the way, so as to give us room to move in. All three guns and all the rifles on board were brought into use, and a regular battle ensued.

The 200 yd. rule had perforce to be abandoned for the time being. The gun-layers fired at any mine they saw, irrespective of how far off it was, and for a time there was a regular uproar, the sharp crack of the 6 pdr. vying with the more mellow cough of the 12 pdrs., while the rifles kept up a sort of chorus.



A. A. SWANN SHOOTING AT A MINE ON THE SURFACE



SHOOTING THE SUN



Between them they managed to break a good deal of glass on board.

While it lasted it was exciting work, and a glorious uncertainty as to what would happen next prevailed, but in the end all were disposed of, and we could draw a quiet breath once more. Two of the mines burst on the surface, throwing spray and smoke 300ft. to 400ft. into the air. They made a fine display, which was no doubt appreciated by a Dutch mail steamer passing afar off, but it was mostly show. Mines exploding on the surface are not nearly so deadly as mines which explode under water. The effects of the latter are terrible. Nothing in the way of hull-plates can resist them.

The remainder sank without exploding. One of them, however, burst on the bottom and gave us a severe shaking. We did not on that occasion wait for the fish to rise. Our main idea was to get away from the spot as soon as we decently could. The sweepers had gone on, and were then two or three miles away, and having seen the last of the mines we steamed off after them.

On they went for about ten miles, and then turned and swept back on a parallel course, but no more mines were found, and at 4 p.m., when it was dark, wires were slipped and hove in, and we all made for harbour.

Life, as the American said, is one durned thing after another, and to our disgust the weather became thicker and thicker as we went on. By great good fortune, we managed to hit off the Sunk Light Vessel, and also to miss the wreck lying on the other side of it, besides sighting the Roughs buoy. So far so good, but after running our distance to the Cork Light Vessel, the fog being then very dense, we failed to find it, and I

stopped the ship, and went to Captain W——'s cabin to report that I had not seen the L.V., and to ask his permission to anchor. "No," he replied "do not anchor, as I want to get into harbour if it is at all possible, and do not stop and drift. Do something seamanlike."

I returned to the bridge trying to think of something seamanlike to do. By calculation just a mile ahead was Felixstowe Ledge with from 10 to 12 ft. of water on it—not enough to float us—while seven cables on the port beam was a shoal with 10 ft. of water. Under these circumstances the most seamanlike thing I could think of was to anchor, but this Captain W—— did not want as he was very anxious to get ashore and telephone to the Admiralty. The next best thing to be done was to make another effort to find the Light Vessel, and I hailed a trawler markship, which had been following us in, and told him to go ahead and see if he could sight it. He went off, and was back in no time to say that it was less than 200 yds. ahead. This was great, and we went ahead again. The shadowy form of the L.V. soon loomed up, and, passing it close, we made for the Platters buoy, $1\frac{1}{4}$ miles on the port bow, and, what is more, sighted it. The course was then altered for the run in to Beach End buoy. The channel is narrow, about half a mile wide, with a right angled turn at the end. After running down it for a bit and failing to see the Andrew's buoy, I anchored. Captain W—— when he came on the bridge, agreed that it was the best thing to do, as he would not have been able to land in such a fog even if we had managed to get into the harbour. The end of an exciting day, therefore, found us anchored in a fog off Harwich, and I, for one, was glad to be there. It was more than I had expected at

one period of the day. Destruction had then appeared to be only the matter of seconds.

Next day we returned to the attack, sweeping on the west side of the shoal. This did not prove a success and nothing was found, so at noon the Captain ordered the sweepers to work towards the north end. No sooner had they arrived there than they found three mines which were cut off and came to the surface. Two of these we sank. The third one had been carried away by the tide while we were sinking the other two, and we let it go as, in view of the number of mines which had been found thereabouts, the Captain decided not to risk the ship by steaming after it through unswept water.

This question of keeping in swept water was a bit of a problem when the current ran athwartship, and we hit on the scheme of throwing over, as soon as mines came up, a small fisherman's buoy attached to a weight by a line sufficiently long to allow it to float, to give us some idea as to how we were being set by the tide. This turned out to be quite a good plan, but it was not necessary when the tide ran fore and aft. The bearing of the sweepers was sufficient in that case to give one a very good idea of what was happening.

No more mines were found that day, or the next, in the evening of which Captain W—— found that he had to return to the Admiralty.

Before leaving he gave me orders to take the mark-ships out at 5.30 a.m., but in the hurry of departure forgot to alter his request to have the Gate open at 6 a.m. from that hour to half an hour earlier.

When we weighed therefore at 5.30 a.m. next morning in the dark, and started to steam down the harbour with the three trawlers astern, we were horrified to find that there were no lights on the

Gateships, and that the Gate was apparently closed. A strong ebb was running out of the harbour, and all four of us went drifting down trying to find the Gate, and making frantic signals to the people in the Fort, asking them to have it opened.

Suddenly the look-out man reported one of the Gateships close to on the starboard bow. We went full speed astern, and heard despairing shouts from the trawlers behind, which were thrown into confusion by this manœuvre. Still, there was nothing for it but to go astern if we were to avoid ramming the Gateship. Reversing the engines had thrown our bow to starboard, and we were then drifting rapidly on to the Gateship broadside on.

In desperation I went full speed ahead with the helm hard aport, and shouted to inquire whether the Gate was open. Without waiting for a reply the helm was then reversed, and the bow swung towards the Gate. I had decided to crash through it rather than strike one of the Gateships. The people in the latter let the wires go with a run, and replied that the Gate was then open. "Too late," I thought. "We are bound to hit this fellow. "But "Sagitta" was swinging faster than I have ever known her to swing, though this may have been imagination. She seemed to understand the position exactly, and to be making a special effort. Should we do it? In the darkness the two ships seemed to be almost touching, and I braced myself for the jar and the distressing sound of the rending and smashing of wood. It did not come. On looking aft, I saw that we had cleared with not more than 2ft. to spare. It was a relief. "Sagitta" really was a wonderful ship. She would do anything you asked her.

Our troubles were not, however, over. Four cables

(800 yds.) outside the Gate was a right angled bend marked by a buoy. This buoy we could not see, and I was, most ungratefully, cursing the fate which caused me to wander about in the dark among those obstructions and twisty channels, when the people in the Fort, warned either by our signals or the uproar we had been making in the harbour, turned a search-light on to it. We rounded it safely, and soon afterwards reached the open sea, and peace.

On the run out the paddle-sweepers overtook us and the senior ship made us a signal. " I fear that we have left one of the markships on the boom." This unfortunately proved to be correct. She had been a bit further south than the rest of us, and when the Gateships had been finally discovered, had been unable to get far enough ahead to pass through the Gate, and had been set on to the boom by the tide. There she remained until the tide turned, when a tug pulled her off, and she came out to try and find us, though holed and leaking. This was very sporting of her skipper, though it did not actually prove of any service as he could not find us, but it showed the right spirit.

Sweeping went on as usual, but we missed Captain W——. He always seemed to infuse additional energy into the proceedings. Moreover, on that trip he had been especially pleasant to me, explaining exactly what he meant to do, and at times even asking my advice, though, as a matter of fact, he seldom took it. Still I appreciated his attitude very much, and was sorry when he went.

We did not find any mines that day, and began to look on the report that there had been a surface mine-layer at work as a myth. The mines which had been found were of the submarine type, and seemed to have

been laid in groups of seven. At that period this number was the most that a submarine could carry, but later on the big submarines took as many as thirty-six.

Two days after the captain had gone orders came for us to go into dockyard hands for a refit, and it was a fortnight before we were at sea again.

By this time none of the original 'Varsity deckhands were left. All had departed at one time or another to take commissions either in the Army, the Air Force, or the R.N.V.R. Two of the latter, A. Swann and W. O. Meade-King, had rejoined as officers, and excellent officers they both made. The rest of the deckhands had been replaced by men of the old type and class, and lawyers, bankers, stockjobbers, architects, and even a company promoter, had appeared in the character of A.B.'s. Cambridge also supplied a few more graduates, or undergraduates, so that in one way and another the ship's company was kept up to complement.

After the refit we were ordered to Dover to meet the A.M.S. The C.O. was coming also, as a passenger.

Before leaving harbour it was the practice to obtain from the people at the Bases the latest information about mines, so as to avoid positions where they were known, or suspected, to be. Unless laid in the War Channel, when the channel sweepers would probably find them during their daily sweep, the first intimation that there were mines about was usually the loss of a ship. When this happened the Admiralty issued a warning that the spot was dangerous, and was to be avoided, cancelling the notice as soon as the place had been swept. These warnings were extremely useful, and we acted on them on the way to Dover,

and threaded our way through the various danger areas without misadventure.

The weather on the trip was rough and boisterous and Dover Harbour was crammed with vessels taking shelter. Nor did the weather improve; on the contrary, it got steadily worse during the night, and was blowing hard when the A.M.S. arrived. So much so, indeed, that he had to give up the expedition he had planned. The motor-boat which came to take him back on shore could not get alongside on account of the sea, and the A.M.S. had to jump for it, and made a splendid leap. He was very fond of all kinds of athletics, and was said to be an extraordinarily good horseman, and a first class revolver shot. When with the Grand Fleet he had taken a leading part in laying out a number of football grounds on Flotta island, and had interested himself in all kinds of sport. He also knew a great deal about seabirds and fish. Like the previous A.M.S., Admiral C——, he was very kind and considerate in overlooking the small *faux pas* we no doubt made from time to time, and, as in the case of Admiral C——, it was always a red letter day when he sent a signal that he was coming away.

Before leaving the A.M.S. told me to return to Lowestoft as soon as the weather moderated. Accordingly we cast off next morning. The harbour was then like a tin full of sardines, so packed was it with ships, and I was glad that Haig was asleep in his bunk when we left, and did not have to suffer the agony of seeing me missing ships by inches.

The only incident on the run up was the sighting of a British mine just awash. The ship was going at full speed at the time, and precious minutes were lost in turning, and finding it again. However, when it was at last sighted Swann sank it at the first shot,

and we were able to proceed. The reason for haste was that it was important to pass a certain spot while the tide was still running, as mines were suspected thereabouts, and a good strong tide very much minimizes the risk of hitting them, as the pressure on the mooring wire "dips" the mine. At slack water, when there is no pressure on the mooring, the mine is vertical, and at its greatest height. The deeper the water, and consequently the more mooring wire there is, the more a mine dips in a tideway.

The weather rapidly improved as we went north, and every one was in good spirits, chiefly because Haig was back again. The feeling in the ward room was noticeably joyous.

When we left Lowestoft for the Humber, Haig reassumed command, Lieut. M—— left us, and I became once more "No. 1."

On the 17th February, 1916, the A.M.S. joined. He proposed to take out three sloops, and a trawler markship, to make a trial sweep on the Dogger Bank. The idea was to make long sweeps of 70 or 80 miles, two of the sloops sweeping, and the other one and "Sagitta" acting as escort and submarine screen, while the trawler was to remain at anchor at the shore end of the line to fix the position. A sloop had recently been sunk by German T.B.D.'s while making a similar sweep. Our work was to complete what she and her consorts had begun.

The work took four days, during which we swept while it was light, and steamed about at night, arriving at the trawler at dawn. Usually the trawlermen had been fishing in our absence, and had a nice lot of fish to distribute.

Only one "panic" occurred, when German W/T was picked up by our operators from ships

close at hand, but these did not put in an appearance.

A semi-panic took place on another occasion when war-ships were sighted on the horizon. The A.M.S. was expecting some British T.B.D.'s which were to come out to see if we were getting on all right, but of course the ships sighted might not be our people. They might be hostile, and we watched them gradually raise their hulls on the horizon with—well, interest. Our challenge was at once replied to, and they came streaking towards us at 30 knots, six big destroyers. As they swept by we noticed that their guns were manned, the crews clustering round them clad in duffels against the bitter wind. The ships looked splendid racing along, flinging the water aside, and leaving a foaming, milk-white wake. Venomous looking perhaps, but obviously powerful and efficient, and with a grace of their own.

On the 23rd February bad weather put a stop to sweeping, and all returned to the Humber. Off Flamborough Head we were rolling 30° each way, and at meal-times it was impossible to keep anything on the table. Plates and dishes steeple-chased about, leaped the divisions in the fiddles, usually managed to evade our efforts to capture them, and ended by crashing on to the floor. At lunch the A.M.S.'s chair fetched away, and he slid across the ward room, still sitting in it, with a plate in his hand, and brought up against the side with a bang. The cottage pie took advantage of the fact that attention was focused on the A.M.S., still adrift from his moorings and sliding about, to spring into the air and hurl itself into the waste-paper-basket. Once in the river the water was relatively smooth, and the stewards, harassed but still cheerful, were able to restore things to some semblance of order.

They were excellent fellows, and never got worried. This was especially true of Watson. On one occasion, he came on to the bridge and announced to Admiral C—— that the breakfast was on the table. At that moment an extra roll was followed by a crash from the ward room and it was all too plain that the breakfast was then on the floor. Watson cheerfully descended, and set about clearing up the mess, and making preparations for another breakfast. I think that the second one was absorbed "according to plan," but I am quite sure that if it had met the fate of the first one Watson would have set about preparing a third without any signs of annoyance.

About this time, to our great regret, Beswick left to continue his studies, much impressed by his experiences while on board. His place was taken by a Scotchman named Taylor, who had already done good work in Serbia and Italy, and who had been blown up in the "Fauvette" off the North Foreland.

Swann also left on a mysterious mission. Months afterwards it came out that he had joined the Coastal Motor Boats, but nothing was said at the time. Their existence was kept very secret. One night these C.M.B.'s, two of them, steamed up to Zeebrugge and torpedoed a German T.B.D. For his share in this, Swann was awarded the D.S.C.

For some time after this we continued to work with the Flotilla of Mine-sweeping Sloops, usually acting as submarine screen for the vessels sweeping, and destroying mines when necessary. Bad weather and fogs interfered a good deal with the work, but on the 17th March, '16, we got away, taking with us a captured German trawler to serve as markship. Only one of the latter was required for the work in hand, which consisted in testing areas rather than

clearing them. It was not known that there were any mines about, but to make quite sure that there were none the sloops were continually making what were called " searching," or trial, sweeps. It was customary to anchor a trawler as markship at the west end of the line. The sloops would then pass their sweep wires across, and start off to the eastwards, keeping on the one course for the whole day perhaps. At dark sweeps would be slipped and hove in, and the flotilla would then form up in single line ahead, and steam about during the hours of darkness, taking care to be back to the trawler at dawn. That day another line would be taken, and so on day after day until coal and water shortage sent us in to port. But it was the weather which sent us in more often than coal. It was a boisterous season, and we went out time after time only to have to return. Very often fog would prevent us from leaving harbour. We were very unlucky with the weather just then, and more unlucky in our Senior Officer, who seemed to want conditions to be exactly right before he would move. However, we did start on the 17th March. " Sagitta " went ahead with the trawler. The sloops were to follow later. The afternoon was calm and the sun came out at intervals, but it was to be the old story all over again. Two steamers going up the coast ahead suddenly disappeared, and a couple of minutes later we ran into a thick bank of fog. From the bridge the bows were only faintly visible. Still, we stood on for a bit, hoping to run out of the fog. Every two minutes the siren blared out, and the sound was immediately followed by the high pitched note of the trawler's whistle. Though quite invisible she was close astern, and was sticking to us like glue. Time went on, and the fog remained as thick as ever. A W/T message

was sent to the sloops to say that we were steaming in dense fog. Wireless messages in the North Sea were not encouraged, and, indeed, were forbidden except in emergencies, but we regarded the fog as an emergency, and ventured on the signal. As conditions did not improve, we signalled by means of the whistle to the trawler that we were turning 8 points, and, as soon as he had acknowledged it in the same way, stood in towards the coast and anchored. In a couple of hours the fog lifted and we weighed and went on, but when we were off Flamborough Head a W/T message came in from the shore ordering us back. It would not have done to try to enter the river in the dark, as the Humber was what was known as a "Defended" port, and at such places they were mighty quick on the trigger. We therefore anchored close in shore again, with the trawler alongside. The fog soon shut down and obliged us to remain at anchor all the next day and night, and until late in the afternoon of the following day. To fill in time, and give the hands some exercise, boxing contests were indulged in, the combatants being armed with one glove and a pillow each, as there were only three gloves on board. In the midst of the fun the fog lifted, and we weighed and pushed off. On nearing the entrance a T.B.D. signalled that it was mined, some enterprising Fritz having succeeded in slipping in under cover of the fog, or darkness, and laying his "eggs." As the T.B.D. would not allow us to proceed we again anchored off the coast. Next day we were permitted to enter, and were ordered up to Immingham to complete with coal and water.

The next time we went out a gale drove us in after only one day's sweeping. We had taken the trawler out to the position decided on, where he

had anchored. In due time the sloops turned up and started sweeping.

There was a fresh breeze which curled the clear sea into white crested waves, with now a green and now a blue tinge. When the sun came out the scene was very beautiful, but a change took place in the afternoon. The sun disappeared behind leaden coloured clouds ; the wind increased ; and the sea, which a short time before had seemed smiling and friendly, then looked threatening and angry.

At dark sweeping was given up, and the little flotilla started steaming west in “ line ahead ” formation.

When we were 90 miles from the coast a searchlight in the darkness suddenly challenged us. The S.O. as the head of the line immediately replied. It did not pay to delay in reply to challenges. A spurt of flame heralding a shell was apt to be the result of any undue tardiness in answering. We were only fired at once by one of our patrols in “ Sagitta,” and I was once fired at when in a “ Q Ship.” Several officers have, from time to time, mentioned casually, however, that on various occasions they have been on the point of firing at us, and one stated that he was about to torpedo us, as we had made the wrong reply, when luckily for us, he recognized us. But I dare say if he had fired he would have missed us. His torpedoes were not very good. They had been about sixteen years in store. I was shipmates with some of the same type later on, and on one occasion we were reduced to the indignity of having to steam away from our own torpedo, which was chasing us in circles.

The challenge came from a T.B.D. which was crashing about alone out there in a rising gale. We heard later that the rest of the flotilla was further out.

The S.O. had made a signal to the rest of us to steam at 12 knots, but at that speed "Sagitta" was rolling and plunging and making heavy weather of it. The sea was short, and steep, and an awkward length for her, and she was continually burying herself forward, and throwing the water freely about. Two of the hands were knocked off their feet by seas which came on board, and were carried from the well deck forward, right along the alleyways, and fetched up aft. One of them cut his face rather badly. The cabins forward were pretty well awash, the C.O.'s cabin light was knocked in, and water was washing about from side to side in my cabin, while one of the stewards chased it about with a dust pan and pail, deploring the fact that he was at sea in weather which necessitated the use of seaboots even in the cabins. After two hours of that sort of thing the C.O. decided to slow to 10 knots to avoid doing any damage on deck. As a result the shaded sternlight of the "next ahead" was soon out of sight.

At 10 knots she was much easier, though she still kicked about sufficiently to prevent B—— the Surgeon Probationer, or "leech" as he was usually called, from appearing at table, and giving the Saturday nights at sea toast of "Sweethearts and Wives." The classic aside to this toast, by the way, is "and may they never meet."

B—— had become engaged on his last leave, and was credited with the intention of making a short speech after the toast, but the weather interfered and he was unable to rise even in honour of his lady fair. Perhaps it was as well.

It was an uneasy night for all.

"Sagitta" had a well arranged bridge, and the helmsman was out of the weather, but the look outs

and the officer on duty had no protection for the upper part of the body, and with spray flying about in sheets, and dashing in their faces, soon had water trickling down their necks, and got wet in spite of oilskins. Shutting the windows would have given protection of course, but one cannot see properly through glass at night, and with ships steaming about without lights, to say nothing of the chance of seeing a Fritz on the surface, and the very remote chance of meeting hostile raiders, a good look out had to be kept.

Things were not any too comfortable below either, and the noise of water washing about the deck, the continual cascading backwards and forwards of all articles not lashed down or secured in some way, added to occasional crashes from the pantry after extra heavy rolls, were apt to make sleep difficult, unless one were very tired when one could sleep through any uproar.

Dawn revealed a fine scene, hollow, breaking waves, and the sea streaked by the white foam blown off the crests by the hard wind. A few trading steamers near the coast were rolling and plunging along, but there were no signs of the sloops, and as sweeping was out of the question we made for the Humber. The trawler was left behind, but came in next day having lost his anchor. It would have been better if we had been sent to tell him to return, instead of simply leaving him to roll about until he parted his cable. Some mistake must have been made.

During the next month, which we spent working with the sloops, very little of interest occurred. Fogs and bad weather, added to a certain amount of "liveliness" from time to time, interfered a good deal with the sweeping.

One calm, sunny day we came across a most extra-

ordinary belt of floating mines, mostly German. Some eddy in the tidal stream seemed to have collected them. They were mines which had broken adrift from their moorings, and many were old, and covered with mussels, and marine growths. The stormy weather had no doubt caused them to break away. "Sagitta" was most successful in dealing with those which fell to her share, and the S.O. sent a signal complimenting us on our shooting. Another message which he sent was not so pleasing. It was to the effect that no ships were to make smoke as strong German wireless signals had just been intercepted. We all steamed that night prepared for action, but did not see any of the enemy, if there were any.

The W/T had possibly something to do with a Zeppelin raid which took place during the night. At dawn we sighted one of the airships on her way home. She was very high, and a long way off.

Zeppelin raids were fairly frequent just then, and there was one on the Humber district while we were in the river. They dropped a bomb at Cleethorpes, and killed about 40 people, it was said. This bombing of open towns was a dirty trick, and cannot be justified in any way.

On another occasion we sighted a Zeppelin at dusk, when leaving the Tyne with a markship. As it proved she was one of six which visited Edinburgh and the east coast of Scotland.

We were just near enough to the coast to signal her presence to the shore Signal Station by searchlight. On sighting us she turned, and disappeared. Nothing happened after her disappearance until nearly midnight, but the night was not to pass without incident. We were then about 60 miles off the coast, with the trawler 300 or 400 yds. astern. A mysterious

light, flashing at irregular intervals, was sighted ahead. The C.O. was sent for, but could make nothing of it, and decided to investigate. Before doing so, we slowed to allow the trawler to overtake us, so that we could tell them that we were going off. The C.O. took the megaphone and went aft to speak to them when they came up, but immediately came running back to say that there was a German T.B.D. alongside the trawler. This was rather disconcerting news, but on looking hastily back I saw that what he had taken for a vessel was only the trawler's smoke lying low on the water. It looked very like a T.B.D. but I knew that it was smoke as I had noticed the same appearance several times during the watch. The trawler then arrived, and was told to follow as well as he could. Steaming at full speed we were soon close to the light. It was low in the water, flashing and then going out at intervals. It looked as if it might come from a submarine signalling to some craft; or it might be a light put down by a submarine to induce vessels to approach and stop to examine it, and so give the submarine a good chance to torpedo them. In the latter case the submarine might be expected to be lying a little distance off, and we first made a circuit of the light in the hope of meeting it. It was a very dark night and we were careering along at full speed when we suddenly sighted, and very nearly rammed, a vessel ahead. The thought flashed through our minds that it must be the trawler, and by a quick helm we just missed her. In the excitement of the moment we had forgotten her, and were just completing our circle when she arrived on the scene.

On recovering from the shock which this meeting caused us, a hurried consultation took place as to the

next step, and it was decided to ram the light. Several spirited attempts to do so, however, failed. Each time it was pushed on one side by the bow-wave. We had, however, established the fact that it was only a floating light, and we felt justified in going on to meet the sloops.

At 2 a.m. we were recalled by a special W./T signal, which suggested to us that there was "hate" about, and we went back as fast as the trawler could steam.

The authorities on shore were much interested in our mysterious light, and decided that it was a calcium flare dropped by the raiding Zeppelins to discover whether they were over water or land. If the calcium lit up they were over water, if it did not, they were over land.

After a little more sweeping we went to Lowestoft for a refit, and when that was complete made for Harwich to join the paddle-sweepers once more. Another, faster, and better armed ship was to replace us with the sloops, and we were to return to the paddle-sweepers for a time only. We gathered that the A.M.S. did not consider us very well suited for working with them, as we drew 15 ft. of water to their 7ft. The deeper a ship is in the water the more risk she runs of striking a mine. Still we were not actually to sweep, but only to follow the sweepers, destroy any mines brought up, and shift the markships across after the sweepers had passed. We were not, therefore, running any undue risk as long as we kept in water which they had swept. This was not, of course, always possible, as the sweep wire might part, but the bulk of the time we were in swept water.

The first day out there was only one pair of sweepers, and no markships. The idea was to make a trial

sweep round the Inner Gabbard Shoal to see if there were any mines there. During the morning a mine was cut off and came to the surface. I was in the wireless cabin at the time, and the first intimation I had that anything was on foot was the sudden appearance of our little dog, which bolted in and hid itself under a bunk. It had very strong objections to mines, or perhaps it was to the firing which followed their appearance. It invariably knew when there were mines in sight, and took cover straight away. Before the first had been disposed of another one came up. The latter was exploded by a rifle bullet, but the other, though hit by a shell, sank without exploding. Two or three seconds after the mine had gone up the decks were deserted. Every one was taking cover from the bits which came down in a shower.

At midday the sweepers were over very foul ground, and the wire parted several times, and caused a lot of delay. In the afternoon while we were at tea—a most inconvenient time—two more mines came up. They sank without exploding. Four had then been accounted for, and there were probably three more about somewhere, but we did not find any of them that day.

A careful search next day resulted in finding one, but the other two, if there were two more, seemed to have disappeared.

After two days with the sweepers, during which we sank a British mine, we were ordered to the Humber to meet the A.M.S. who had business in the North.

On the 25th May, '16, he came on board, and brought a cheese and a ham. He nearly always brought something for the larder when he came away, and also sent cigars, coffee, and other luxuries from time to time. The former A.M.S. had been equally thought-

ful and generous. They both sent us some of the tongues which "My Lords Commissioners of the Admiralty" have presented to Admirals on their appointment from time immemorial. These tongues are packed in casks of brine, and are excellent.

On the 28th May we reached Scapa Flow, after calling in at the Firth of Forth, where the A.M.S. had some visits to make.

After getting through the Gate in the boom we passed crowds of ships of all kinds, sweepers, colliers, oilships, supply ships, hospital ships, T.B.D.'s, light cruisers, trawlers, and drifters, besides motor-boats, sailing whalers, and rowing boats, and after rounding Fara Island passed the sterns of the battleships, and got to the buoy which had been allotted to us. Crowds of officers then boarded us in all sorts of craft to greet the A.M.S. The amount of gold lace about was quite unnerving, and I, for one, kept out of the way as much as possible. Later on the A.M.S. dined in the "Marlborough," and brought back an invitation for our officers and crew to go over her next day. It is hardly necessary to say that we jumped at the chance and went across in a cutter. We were most courteously received and were shown over the engine-room, bridge, conning tower, turrets, and aerial gun station. It was very interesting, but at the same time very bewildering, and we came away much impressed. Two days later she left for the biggest sea-fight of the war, and two days after that we saw her coming in to the Humber with list to starboard. She had been torpedoed in the Battle of Jutland, but had been able to continue firing as if nothing had happened.

The A.M.S. had gone to Scapa to witness some trials of an apparatus to render ships immune from mines.

He went out at various times in different ships, and expressed himself as well satisfied when he came back. The invention was adopted, and I believe proved satisfactory, at least as far as warships were concerned. A number of merchant ships were fitted in a similar way, but seemed to make a practice of never using the apparatus, at any rate I only saw one with it down.

On the evening of the 30th May the Grand Fleet left, and next day the Battle of Jutland took place. It was rumoured late in the afternoon that they were going out, but no one had any idea that it was anything else than one of the usual fleet exercises. Indeed Haig was dining on board the " Marlborough," and was returned to us in a drifter at the last moment.

At 10 p.m. the first ship left. The night was very quiet, and rather misty. No sound of any kind came from the Fleet, but each ship in turn weighed, and faded silently away. One could just see that some of the ships were moving, and then, quite suddenly, one realized that the Flow was empty. One minute they were there, and all at once, as it seemed, they had gone.

Although there was no reason to suppose that their departure meant anything unusual, yet I think that all who saw them go felt that there was something behind it, and that great events were in the wind. I overheard a senior officer say, " What a load to rest on one man's shoulders ! If any disaster occurred to the Fleet it would be all up with the Empire."

It was indeed a staggering responsibility. The fate of literally hundreds of millions to hang on one man's judgment, on a decision to be taken, perhaps in the midst of a terrific battle ! Yet a man was found

able to bear the burden, and to bring matters to a successful issue,

Next morning we left the deserted Flow for Granton. The departure of the Fleet had put a stop to the trials in which the A.M.S. was interested, and there was no reason for remaining. Moreover, submarines had been reported outside, and the A.M.S. hoped to find one, a forlorn hope as, being low in the water, they could always see the masts and funnels of steamers on the horizon long before it was possible for the steamers to see them, and they made it an invariable practice to dive and examine the approaching vessel through their periscope at their leisure. They could then, if they thought it worth while, attempt an attack, or, if not worth while, they could remain submerged, and invisible, until the steamer had gone. The most that a patrol could ever hope to see was a periscope, unless, by good fortune, he happened to blunder into a submarine on the surface charging up its batteries at night.

Next morning the A.M.S. left at Granton, after ordering us to proceed to Lowestoft. On the way out of the Firth of Forth one of the Signal Stations signalled us to return. Round we went, wondering what it was all about, and anchored off Granton again. No sooner was the anchor down than the A.M.S. was on board, and with him came 80 loaves. He had overheard me, as he was leaving, tell Haig that we were short of bread, and though the first news he had heard as soon as he landed was that there had been a Fleet action, and that some of the ships were coming in damaged, yet, in spite of the pre-occupation of mind caused by this news, he had not forgotten the bread, and he gave orders for 80 loaves to be put in the motor-launch which brought him

back to the ship. He was like that. He never failed to observe anything, or forgot anything, and the former A.M.S. was just the same.

The news on shore had decided the A.M.S. to alter his plans, and to go out and meet the damaged ships to see if any required assistance, and then to proceed to Grimsby.

Just outside the Firth we met the “ Warspite ” coming in with an escort of eight destroyers. She was steaming at 20 knots, and, though she bore the marks of battle, did not seem much damaged. As she passed she made a signal that she had just been attacked by three submarines. She gave no news of any other ship outside requiring assistance, and we started off on the hopeless task of trying to find the submarines. They may have seen us, and about a score of other patrols of all sorts, but none of us saw anything of them, and after a time we made for the Farn Islands, where another enemy submarine had been reported. The weather was thick, and it was raining, and on the way we became mixed up with a fleet of herring drifters.

These drift net boats use nets a mile or more in length, which, supported by leather buoys about a foot in diameter inflated with air, float just under the surface. The lower part of the net is weighted to keep it vertical.

The driving rain prevented us from seeing any of the boats until we were fairly involved amongst them, and we were half an hour or more dodging about before we got clear.

It is hardly necessary to say that we saw nothing of the submarine, he took care of that, and after hanging about for a bit we went on down the coast.

Next morning the A.M.S. left at Grimsby, and we went on to Lowestoft.

Just as we were leaving the river the "Marlborough" came in with a list to starboard, escorted by T.B.D.'s. It seemed ominous that she should be entering the Humber, as there was not a dock there large enough to take her. It looked as if she came in for protection merely, and until things quieted down. In the total absence of news it was far from reassuring.

At Lowestoft we heard that three battle-cruisers, and two armoured cruisers had been sunk, and that six of the latter were missing, and that there was a long list of missing T.B.D.'s. It was one of the most miserable evenings I have ever spent, and on hearing the news I went and turned in at once, and went to sleep hoping for better news in the morning. It was a day or so before the report came out that though our losses were heavy, those of the Germans were actually heavier, and amounted to a disaster from which they never recovered.

I do not know how it arose, but about this time we gradually began to lead a less strenuous life. Possibly our draft of 15ft. of water was considered too much for steaming about on minefields, but any way it began to be rumoured in the Galley Gazette that we were going on ordinary patrol. The Galley Gazette, I may say, was not a paper, but was a term applied to the final and sifted result of all the rumours circulating in the ship, which were usually discussed in the galley. What with what the signalmen, and the wireless operators picked up, and what was inferred and guessed, quite astonishingly correct forecasts were often made. I had felt that a change was coming for some time, and had applied, through the C.O.,

D. M. Haig, for the command of a submarine straffer of some sort. This was approved, but I was not to leave before my relief had got into the way of things. He arrived soon afterwards and proved to be a very pleasant man, who had left the Mercantile Marine 13 years previously with a second mate's ticket. Most unluckily he was just recovering from gastric trouble when he joined, and was not in a really good state of health, though sufficiently so to pass the doctors.

Next day, as had been forcasted, we went out on patrol, but were recalled before dark, and told to join two paddle-sweepers at 4 a.m. next morning and assist them to sweep the war channel south of Lowestoft.

The mine-laying submarines from Zeebrugge appeared to be making a dead set at that part of the coast, and mines were found almost daily between Lowestoft and the Sunk Light Vessel, off Harwich. These two paddle-sweepers were sent to help the trawler sweepers keep things clear, and we were sent to help the paddle-ships in any way the Senior Officer wished. Sweeping started daily at dawn, and until all channels between the North Foreland and Lowestoft had been swept all merchant traffic was held up, in Yarmouth Roads if going south, and in the Downs if going north. This plan caused delay, but it saved many a ship.

As we passed through Yarmouth Roads on the way to the rendezvous a patrol-trawler steamed up and asked if we knew that all south-going traffic was held up. He could not, of course, stop the White Ensign, and chose this polite method of telling us that the channels had not been swept. We replied that we did not know it, and went on. It occurred

to us, however, that this might appear a bit off-hand and discourteous and we subsequently tried to find the trawler's officer on shore and make things right, but never came across him.

A little further on we met the sweepers and markships. After the latter had been placed in position for the first run, we were told to steam about 500yds. ahead of the sweepers to guide them from mark to mark, as the weather was thick and the marks difficult to see. After a time it became clearer and we took station astern. Two mines were cut off, one of which we sank, and a group of trawler-sweepers accounted for the other one.

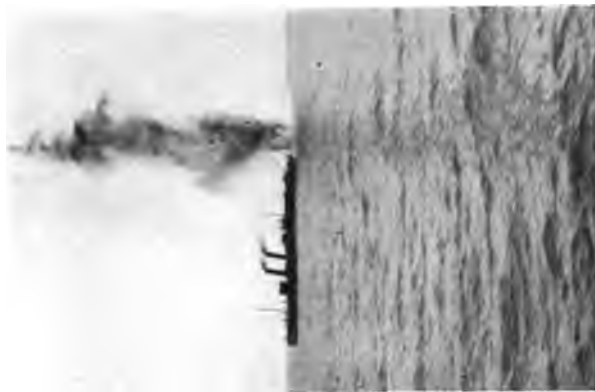
In the afternoon the northern part was clear, and to save time we towed the markships to the southern end where a small bit still remained to be done. While engaged on that part of the line we saw a mass of ships approaching from the south. Evidently the traffic had been released. The result was a sight never seen in peace-time. There were over fifty ships of all sorts, shapes, and sizes, steaming along as hard as they could, and all trying to keep in the narrow war channel.

Viewing them from end on, one could only see a perfect forest of masts and smoking funnels, and a compact mass of ships. For safety's sake the bulk kept near the war channel buoys, but a few stragglers occasionally wandered to one side or the other, until, meeting wreck-marking buoys, or the masts of wrecks themselves sticking out of the water, they got rather scared, and turned towards the others again.

Somewhere in that crowd were the sweepers, carrying on as best they could, and blowing two short blasts and one long ("You are standing into



NOT A DISASTER, BUT ONLY A CAPTURED GERMAN
TRAWLER IN A SEA ACTING AS "MARKSHIP" FOR
THE SWEEPERS



A GERMAN MINE EXPLODING ON TOP OF THE
WATER



danger ") whenever any of the steamers looked like passing over the sweep wire. We waited for them to come up, and watched the shipping go by. First came the fast steamers, pushing steadily along with an air of grim determination. After the leaders came the main body, very close together, and behind them the 8-knotters struggled gallantly along, trying to get into Yarmouth Roads before it got dark. Some of them were light, without cargo; steering none too well considering the crowd, and churning up the water with propellers only half submerged. All sorts and conditions were there, from 3000 to 300 tons, some of them well painted, clean, spick and span ; some of them neutral, neither very clean nor very dirty ; and some of them frankly dirty, rusty, and neglected, with obviously barely enough men on board to work the ship from port to port, let alone try to keep her clean.

When the sweepers emerged from the press, the S.O. sent us on ahead, and told us to hoist a large flag at the masthead as a mark for them to steer for. Hardly were we in position when we saw a second crowd of ships approaching from the north. It looked as if there would be a holy mix up when the two lots tried to pass each other. The leaders had no difficulty, but things were very congested when the two main bodies met, and there was a great blowing of whistles as the various ships signalled to each other what alteration of helm they were making. We only saw one collision, however, and that, strangely enough, was not between vessels meeting, but between two ships going the same way, one overtaking the other. They both reeled from the impact and then proceeded without, as far as we could hear, a single word being exchanged between them.

If Fritz had had any enterprise—which he certainly had not—and had waited about for these masses of ships to come along he could have fired all his torpedoes with the absolute certainty of not missing with a single one, and could easily have got away in the resulting confusion. Our submarine officers and men were out and away better in every respect than the Germans, but they had no targets. If the position had been reversed, and they had been in the place of the Germans and the sink-at-sight policy had been adopted, it is not too much to say, and anyone who knows anything about the matter will agree, that practically the whole of the merchant marine would have been sunk.

Next day sweeping was continued in the same area without anything being found, but in the evening a small 300 ton steamer in ballast struck a mine close by where we had been working, and sank. A further search had therefore to be made. It was without result.

A few days later we were with the sweepers just south of Lowestoft when a mine was brought up, which we exploded. It threw dirty water in every direction, splashing those on deck, and spotting and staining the decks, the cleanness and whiteness of which filled us with pride. The varnished work also suffered. There must have been some chemical in the water which attacked the wood, and the decks had to be scraped and the rails rubbed down and revarnished before the traces of the splashes were removed.

Three small pieces of the mine also fell on board. They were eagerly seized on as souvenirs. A larger piece hit the deck, but bounced overboard.

On the 27th June, '16, we were still off Lowestoft

where a number of ships had been blown up. In fact there were so many wrecks about—amongst them that of the Corton Light Vessel, which was blown up by a mine getting foul of her cable—that it was extremely difficult to do any sweeping at all. The sweep wire kept on fouling submerged obstructions, and parting.

On the way out that morning the C.O. decided, perhaps luckily for us, to run from buoy to buoy in the war channel to check their bearings and distances, instead of making straight across towards the sweepers. On joining the latter the Senior Officer passed over the programme of the work, and sweeping started. Shortly afterwards a mine was cut off, very much in the path we should have followed had it not been for the C.O.'s happy decision to take the war channel. Of course it was just a chance whether we should have hit it or not, but no one was disposed to refuse the C.O. the measure of praise which he claimed for his watchful care of us. We felt great pleasure in sinking that mine.

After this little incident there was a long delay, owing to one of the sweepers damaging her kite on a wreck, and to the continual parting of the wires. Time after time they parted, and very little ground was covered. Later on a kite exploded a mine on the bottom, probably the one we sank in the morning. The kite was blown to bits, and the sweeper had a bit of a shake up.

Although we did not know it at the time, the next day, 28th June, '16, was to be the last one we were to spend with the sweepers. There was a cold N.N.W. wind and it felt more like winter than June when we weighed at 4.30 a.m., and followed the sweepers out. The day was not destined to pass without incident,

as at 6 a.m., while we were waiting for the sweepers to pass their wires across for about the fourth time, there was the dull boom of a mine bursting under water and, rushing across the bridge, I was just in time to see the stern of a vessel disappearing under water about a mile away. We turned at once and started off, asking permission of the Senior Officer to proceed, as we passed him.

In reply the negative flag fluttered up to the triatic stay. This meant "No," so we stopped. The S.O. then semaphored, "You draw too much water," and steamed off himself, heaving in the sweep wire as he went.

There was a tug on the spot where the ship had disappeared, and we could see that they had lowered a boat, and were apparently picking up survivors. The sweeper was soon up to them, and in a few minutes later was on its way back, signalling to us to send the Doctor. Our boat had already been swung out in anticipation, and was in the water by the time the sweeper had returned. No time was therefore lost, and the sweeper only had to stop its engines long enough for the Doctor to scramble up the side, and at once made for Lowestoft, telling the rest of us to wait for her in the Stanford Channel. She was back in an hour, and we sent the boat for the Doctor. He told us that the ship blown up was a dredger, which was being towed up the coast. She had a crew of seven men, of whom two had been picked up. The latter were on deck at the moment of the explosion, and had been thrown into the water, but those below had all been killed. One of the two survivors had died on the way in; the other one ultimately recovered. His father was amongst those killed on board.

Sweeping then proceeded, and continued all day, but it was a wearisome business as the sweep wires kept on breaking. They parted twenty-three times altogether during the day, owing to the foul bottom, and it was evening before we reached the spot where the dredger had sunk. The position was fixed by bearings of marks on shore, and a buoy was dropped on the spot. Dropping this buoy was to be our last act in connection with mine-sweeping, though we did not suspect it at the time, and next day we found ourselves patrolling for submarines on a beat thirty miles long, and from fifteen to twenty miles off the coast.

A new chapter had opened in our career. Patrolling was altogether different from working with mine-sweepers, and proved to be a pleasant change, as we were very much our own masters. As long as we kept in the area allotted to us, and carried out the general instructions given, no one cared what we did. This was a great improvement on being always ordered about. On the other hand we did a great deal more night-steaming and at times steamed continuously for six days and nights.

Our last day with the mine-sweepers had provided a sensation, and a distressing one too, in the blowing up of the dredger, and the first day on patrol provided another one, as we sighted a German submarine on the surface, which was the only enemy submarine we saw all the time we were patrolling. Later on, it is true, we saw a periscope, but never again the hull of a submarine.

At the time this one was sighted we were about 20 miles off the coast, and steaming south, while the submarine was 4 miles on the port bow. It appeared to be an enemy craft as it was in diving trim, and

there were no men on deck, or in the conning tower, and it was probably a mine-layer making for the coast. It continued on the surface until we were 3 miles distant, and then dived. There was nothing to be seen when we reached the spot nearly 15 minutes later, but we cruised about for some time with all hands not on duty below at "action stations" and looking out for a periscope. While we were so engaged a seaplane flew up, and we tried to enlist its services in the search by means of the searchlight, but this broke down. When we got back to port the pilot came on board. He was one of the original deckhands of the "Zarefah," who had taken a commission in the R.N.A.S., and he told us that he was out looking for a submarine, which had been reported. He had noticed that we were at "action stations," and had thought that it was because we took him for a hostile 'plane. Some one asked him if he had ever been fired at, and he replied in a matter-of-fact tone, "Only by shore batteries." We gathered that he considered this almost equivalent to not being fired at at all.

Being unable to find any trace of the submarine we went on, and later in the day came across three of our own submarines going on patrol. One of them never returned. We were the last ship to see it.

Meanwhile my "relief" went from bad to worse. His gastric trouble returned, and he could not sleep, and want of sleep upset his nerves. Dreadful dreams bothered him. In one of them he was trying to bring down a Zeppelin with a golf ball made of a German horned mine. His problem was to drive off the "ball" without breaking a horn, which, of course, would have exploded the mine. It was becoming evident that he would have to be landed

for treatment, and that another officer would have to be found. This meant more delay in getting away for me, but it could not be helped.

Accordingly when we went back to port he went to see the Doctor attached to the base, who certified him as unfit for sea duty, and for a time we were one officer short.

On the 17th July we found a Dutch herring fishing boat in an area prohibited to them, and as the name on the ship's papers did not agree with the name on the ship, we reported the matter by W/T, and were told to bring her in. A rope was passed to them, and we towed them into the Roads. On the way in a M.L. (motor-launch) came by and the C.O., who was an old friend of Haig, signalled, " C.O. to C.O. You are a big bully." To this Haig replied, " C.O. to C.O. Is your gun loaded? I feel very unsafe." This M.L. had just previously been in disgrace with the people at the base for discharging its gun in the harbour. As a punishment they were sent out of the harbour to anchor in the Roads for two or three days. Haig's inquiry therefore took them aback, and after hanging about for a bit in the vain hope of some brilliant reply suggesting itself to them they moved off.

As the Dutchman was found to be harmless, in spite of the discrepancy in the names, we had to tow him out again in the evening. Soon after midnight we cast him off, and told him the course and distance to the Hook of Holland, whither he was bound.

Our patrol area at that time was between Smith's Knoll and the North Hinder Light Vessel. The neighbourhood of the latter was the scene of a good deal of active " hate " just then, as it lay only 50 miles from Zeebrugge where the enemy had about a dozen of their big, fast destroyers. As these were

making themselves a great nuisance by raids, the Harwich destroyers were very anxious to mop them up, and there was frequently what the Admiralty called "a certain liveliness" about that part. The scraps were always running fights, as the Germans never stopped to argue the matter, but invariably fled as soon as they sighted any of our ships. On one occasion six of their destroyers ran from two of ours, and got severely hammered into the bargain.

We were lucky in not getting mixed up in any of these scraps, as our relatively low speed, and light armament, made the chance of our doing any good very small. Indeed it seemed rather strange that we should have been sent to that part without support.

One dark night when near the L.V. we suddenly found ourselves in the midst of a number of destroyers, which were going past at a great speed. We thought they were hostile and that our last hour had come. Luckily we were in between two lines, and so were not run down. I do not know when they saw us, but we did not see them until they were right up to us, and then the leading ship flashed a challenge as she tore past. We replied instantly, with thankful hearts, as the challenge proved them to be friends.

Another morning just before dawn when in the same neighbourhood some T.B.D.'s were sighted steaming S.E. at full speed. From what we could see of the ships they were hostile, but they did not see us, as we had a bank of mist behind us while they were clear-cut against the coming dawn. It is very likely that they were looking for us, as this occurred the morning after a submarine had made an abortive attack on us. It had then been a quiet, sunny, but rather misty day, and we were steaming along at 10 knots, zig-zagging to make things more difficult

for any submarine that might decide to attack us. As it happened there was a submarine ahead which had evidently seen us approaching, and had made up its mind to have a shot at us. Our zig-zags, however, defeated it, as it bobbed up 200yds. away showing about a foot of periscope, just after we had altered the helm, so that we were then parallel to each other, and they could not fire. If we had not altered at that moment we should have been right across its bows, when it came up, and they could not have missed us. As it was, they immediately dipped, and then the periscope showed up again for a few seconds, and then disappeared for good. The attack had failed. If we had had some of the depth charges which were issued later, it could not have got away. It was just the time for these. We knew where it was within a few yards, and could have blown it up easily. For a couple of hours we kept about the spot without seeing anything more, and then resumed the patrol.

On another dark night three black shapes were suddenly sighted ahead crossing our bows. They were evidently ships of some sort, and as they were not showing any lights the first thought was that they must be warships. If they were hostile we could not elude them, as they must have seen us, so we put a bold face on it, and steamed up at full speed, challenging as we came. A feeble and uncertain flicker replied after a short interval, but we were by then up to them and could see that they were merchant ships. To make sure we turned a searchlight on them for a few seconds, for a very few seconds, as it was not advisable to do much flashing of lights in that part of the North Sea. They were three British ships making a hazardous passage from a Dutch

port. It was most surprising how much trade was done with Holland at that time. I have seen as many as seven ships without any escort, passing the North Hinder Light Vessel at dawn, all coming from Dutch ports. Nothing could show more clearly the absolute lack of enterprise on the part of the Germans. They had fast T.B.D.'s at Zeebrugge, and yet this traffic went on. It is amazing.

When we next returned to port we made inquiries about these merchant ships steaming at night without lights, and learned that it was a new order issued by the Admiralty. In future all ships were to be darkened and to steam without lights to minimize the risk of submarine attack. From that time onwards steaming at night became a considerable strain.

One evening we were ordered to make for Southwold to serve as a guard to 50 merchant ships, which were anchored off the town. The channel to the northward was mined, and they had been told to bring up. We arrived there just at dusk, and found them scattered up and down the coast. None of them showed a glimmer of light, and, as there was no moon, patrolling was not as simple as it seemed, especially as some drifters with mined nets out had brought up outside them, while an armed trawler steamed around all night. It was the latter which made things so complicated. If it had only kept still there would have been no trouble, but moving about as it did it was impossible to say whenever a black mass was sighted ahead, whether it was an anchored ship, or this trawler steaming. At midnight at the change of watch we nearly rammed it -- it is curious how often things happen at the change of watch—but did not actually touch it.

A W/T message addressed to the ship at 1 a.m.

1

rather puzzled us. It came from the Base at Lowestoft, and called us by our " call " sign. As soon as this had been acknowledged the message went on, " Nothing more to add." Why did they call us if there was no message? It was curious. Next day it appeared that there had been a deal of " hate " about, and they had called us up to find out whether we had been sunk, or were still afloat. It was merely curiosity on their part.

H. W. Harvey, who had joined as an A.B. at the start, and who had been left behind in a hospital at Dunkerque, now turned up to replace the officer who had been invalided. On regaining his health Harvey had been put in charge of a group of six trawler-sweepers, leaving them later to become 1st Lieutenant in a paddle-sweeper under Lieutenant-Commander Herivel, R.N.V.R., and from there came to us to replace me. I did not leave at once, however, as the A.M.S. told me to remain on board for a bit.

While I was still on board Zeppelins became very troublesome, and the order from the Base, " Prepare for hostile aircraft," was frequently given. On several occasions we were sent 20 or 30 miles off the coast to waylay them, and had a scrap with three on the evening of the 24th August, 1916. It was a cloudy night, and the first was fairly close before it saw us, or we saw it. It immediately started rising at a very steep angle. As our first shells were bursting near, its crew began flinging things over to lighten it. We fired a lot of ammunition and made a lot of noise, but did not obtain any actual hits, while the Zeppelin was rising so fast that it was soon out of range of our little gun, a 6 pdr. The second airship was then sighted, and we engaged it, but it had taken advantage of the interval, and had risen out of range.

Apparently the third one, which then came into sight, did not grasp what was happening, and it came along low down. As soon as we saw this we left the second one, and attacked the new-comer, and made fairly good practice in spite of the rolling of the ship caused by a steep sea. The Zeppelin seemed much bothered, and after turning south, and then swinging round to north, without being able to avoid bursting shells, made a cunning move, and turned east, and fled, keeping straight ahead, and thus preventing us from firing for a few seconds on account of the funnel and masts. The course was at once altered to enable the gun to bear, but precious moments had been lost, and the Zeppelin had got out of range.

If we had not damaged any of them we had at least broken up their formation, and caused them to lose touch with each other, besides sending in news of their presence. They tried to get together again by sending each other wireless messages, and this in itself was useful as it enabled our people on shore to fix their position.

The Zeppelins having all disappeared we resumed the patrol, and things quieted down for a time, but not for long. It was an unquiet night, and when Harvey handed over to Meade-King at midnight he said, "Ahead of you are two suspicious vessels without lights. A number of loud explosions are occurring in the south-west, probably Zeppelins, while in the south-east a naval engagement appears to be in progress. Good night." Meade-King felt the position of affairs to be beyond him, and sent for Haig, who decided to join the naval engagement. Course was accordingly altered, but the sounds died away, and after a time we returned.

Before dawn next day a W/T message came in, ordering us to a certain position where a Zeppelin was reported to be down, and in the water.

There were, however, no signs of it when we reached the spot, nor did any of the patrols know anything of a Zeppelin being down. The report had not been confirmed, they said at the Base when we reported, though the German W/T stations had been calling one of the airships for hours without getting any reply. Ten Zeppelins are said to have taken part in the raid. Only nine were seen to return over Holland. That was all that could be gathered.

Soon after this, while patrolling one night in the Would, a channel just north of Yarmouth, a shell flew past, the sound of the gun report arriving immediately afterwards. It missed us, but seemed to have greatly upset a merchant vessel close by which was ploughing north through the night. She went full speed astern, and kept on making a signal to that effect on her whistle. We rushed off in the direction from which the shell had come, and soon came across a patrol steaming to meet us. She said she had fired because we had not replied to her challenge. As a matter of fact Harvey had seen something which he thought might be a challenge, though it was not very clear whether it was one or not. While he was meditating over the matter the shell arrived. Such little incidents really did a lot of good, as they smartened every one up.

On the 2nd September, '16, we were recalled from patrol after being out only two days, and were sent east to try and intercept some Zeppelins which were on their way over. We steamed about all night, but saw nothing, and returned in the morning. It appeared that 13 airships took part in the raid, and that one

was brought down near Enfield. One of them made the land just south of Yarmouth, and north of Lowestoft. There were 30 ships in Lowestoft with searchlights and high angle guns, and at a signal all the lights were suddenly turned on and the guns opened fire. The Zeppelin seemed bewildered for a few moments, and then made a bee-line for the sea. Our friend, the King's Pilot Munning, who always took us into harbour—pilotage was compulsory—said it was the prettiest sight he had ever seen, "better than the regatta." Munning, who thought nothing of boarding ships in quite a nasty sea, had the greatest respect for our little dog, a harmless little animal, and it had always to be locked up when he came on board. His first question usually was, "Where is the dog?" It was really quite a nice little beast. It often came on to the bridge at about 5 a.m. to say "Good morning" and to see if there was anything to eat, and was very quick to know whether it was likely to be welcome or not. If there was any electricity in the air it spotted it at once and cleared off, but if things seemed quiet it would come up, and have a good sniff round.

Rather an amusing incident occurred about this time in connection with a sham landing. The general idea was that a feint should be made north of Yarmouth by four "P" boats, while the real invading force, represented by a few gunboats, was to operate south of Lowestoft. It was to be a surprise practice, and very few of the military knew anything about it. In due course the "P" boats arrived, and started their dummy bombardment. The news was at once passed to the military, who acted with the greatest energy, and troops were poured into the area, and guns brought up. So quickly and well had the

defending force been concentrated that when the real invading party arrived off Covehithe there was not a soul to receive them, and they were constrained to send a boat ashore with an officer who walked to the nearest telephone and rang up the military and informed them that the invaders had arrived all right and what about it ?

At this period our ordinary routine was a week at sea and about the same time in harbour.

When in harbour there was always a good deal to do. Coal, water and stores had to be got on board, and the engines, guns, and gear overhauled, and defects made good. At 5 p.m. work stopped, and one watch was allowed liberty on shore each night. Moreover, if possible, time was allowed for football and other sports, to keep the men fit.

When at sea we were moving about practically the whole time, though we occasionally anchored for a few hours at night if the weather conditions were very bad. Steaming at night was not all joy in that part of the world, as the place is a network of sandbanks, and there were no lights to guide one. Moreover, there were a great number of wrecks in the channels, to strike one of which might very well have meant the loss of the ship. Nevertheless it was a very pleasant life, as we were so much our own masters, and could go where the C.O. liked, within the limits laid down.

At times, instead of steaming about, we stopped the engines, and drifted about in the hope that a hostile submarine might come along. On one occasion Zeppelins passed overhead, and made the coast near Bacton. Low lying clouds hid them from view, but the engines could be plainly heard. There was an anti-aircraft station at Bacton, and the search-

light started up, but could not pierce the clouds. The Zeppelins—there were three of them—dropped six big bombs in an attempt to hit it, but all missed, and exploded harmlessly in fields. One of these airships was brought down in flames near London.

In the meantime I did not seem to be any nearer getting a command, and again applied through the C.O., who forwarded the application to the A.M.S. "What does he actually want?" asked the latter, "A 'P' boat?" "I think that he will be quite happy if you get him a smack and a gun, sir," and that was how the matter was left. As a matter of fact I did not want a "P" boat, as I had the idea that submarines kept out of the way of all patrols, and that to see them some sort of disguise was necessary. In other respects of course a "P" boat would have been a much better command than a smack.

At last after some further delay I got away on the 2nd November, '16, and reported at the Lowestoft Base for service with the armed smacks.

The "Sagitta" went on patrolling until April, '17, when she left for the White Sea. Her wonderful luck went with her, and she escaped destruction by almost a miracle on the way out. Two moored mines were then sighted ahead, too near to be avoided by going astern. They were just awash, and about 25 feet apart. As it seemed impossible that she could avoid hitting one or the other of them, all hands were sent aft, while Lieut. W. O. Meade-King, R.N.V.R., took the wheel, and very skilfully got her through without touching either. The carpenter, Atkins, kept one mine clear with a boathook. In and around the White Sea she did escort and patrol work, and returned to England in December. In

February, '18, she was paid off, and taken over by the Transport people. Her old crew were scattered far and wide. The A.B.'s took commissions, and one of them, Norcliffe, was present at the blocking of Zeebrugge harbour.



CHAPTER III

ARMED SMACKS

BEFORE the war Lowestoft had a fine fishing fleet of about 250 smacks, of anything from 25 to 60 tons, besides a number of drifters. The latter were taken over by the Government at the outbreak of war, and nine of them were lost before it ended, but the sailing smacks went on fishing as usual round about Smith's Knoll, which is a sand-bank 25 miles north-east of Lowestoft. At first all went well with them, but before very long the enemy started sending submarines over to sink them. These submarines used to come up in the middle of the fishing fleet, and order the crews of the nearest smacks to abandon ship. They then went alongside, and sank the ships by putting bombs on board, after taking away anything they wanted in the shape of food or gear. The matter became serious. Smacks were being sunk at a great rate—150 were lost during the war, the bulk being sunk by submarines—nor was it easy to see how they could be protected, as they were obliged to fish spread out over a fairly wide area. It was finally decided to try and discourage submarines from suddenly bobbing up, and sinking the nearest smacks, by arming a few of them, and sending these armed vessels out to fish with the others.

Accordingly four were selected and armed, one with a 13 pdr., another with an 8 cwt. 12 pdr., the third with a 6 pdr., and the last with a 3 pdr. Two

of them were also fitted with motors. The guns stood on deck just for'd of the mizzen mast, and were more or less concealed from view by dummy hatches, or tarpaulins. These little ketch rigged smacks were in fact the first of the "Q," or mystery ships, and were very successful. Between them they accounted for very nearly a dozen submarines. At first they had things all their own way. Occasions occurred in which the submarines came up close alongside them, and were promptly sunk. Once the submarine was so close that the gun could not be depressed sufficiently to clear the rail. The rest of the crew opened fire with rifles and revolvers, but the gun-layer was left in the cold, as he could not fire without hitting his own ship. Finally, in desperation, he fired through the rail, and got a direct hit, and followed this up by six others. The submarine went to the bottom full of holes.

Very soon, however, the Germans altered their tactics, and instead of coming alongside took to sinking the smacks by gunfire from a distance. They were at first armed with a 22 pdr, which completely outranged the miserable little guns carried by the smacks, but later on this 22 pdr. was changed for a 4.1" which in its turn gave way to a 5.9" gun. Moreover, there were times when there were no armed smacks on their station. They were supposed to work in pairs, three days in harbour, and four days at sea. In theory this should have resulted in two always being on the spot, as after three days in harbour one pair should arrive out on the fishing ground on the fourth day, passing the other pair coming in. Actually, however, the weather, and the direction of the wind, decided whether they got out, or not. Further, their presence did not necessarily mean protection

for the fleet. They could not proclaim themselves to be armed by opening fire at a long range, as they were so completely outgunned that their only chance of doing any good lay in waiting until the submarine came within effective range, which of course it might not do. As a matter of fact the enemy very soon knew all about the armed smacks and avoided them. Quite a number of the men in the submarines had fished out of Lowestoft before the war, and occasionally sent in messages to former acquaintances in the town. They also sent insulting and threatening messages addressed to the armed ships through the crews of smacks which they had sunk. These Germans knew the fishing grounds well, and also all the smacks, and their method of working. They also knew which of the smacks had guns, in spite of the fact that the latter made from time to time what small alterations in their appearance were possible, and likewise changed the registered numbers painted on their sails. This had to be done with discretion as the Germans had lists of all smacks, and would have detected any faked numbers at once. Nor could the numbers of vessels which had been sunk be used, as these were also known. The only ones available were those of smacks which were for some reason not at sea.

At the time I joined none of the smacks had done any good for months, except that a submarine was believed to have been sunk by fouling a mined net towed by one of them. An explosion occurred in the net, and an obstruction was afterwards found in that position by sweeping. These nets were made of wire supported by glass floats, and had contact mines attached to them. They could only be used in fine weather, as they had to

be hauled in by hand, an impossibility in a rough sea.

The submarine which had been blown up had probably been making, through its periscope, a close inspection of the smack, and had run into the net. It is very likely that they made a practice of closely watching the fleet before taking action. If, for instance, they suspected a smack owing to there being something showing on deck which might conceal a gun, and concentrated their attention on it, it is possible that sooner or later an extra hand would appear on deck, and that would of course give the game away. The ordinary smack when fishing carried five hands, but the armed smacks, on account of the gun and motor, had to carry nine, or ten if an officer were on board. Smacks without an officer or motor carried eight hands. The difficulty was to keep the extra hands out of sight during daylight, not an easy matter in a small ship.

At that time there was only one officer permanently in these smacks, Lieutenant Scott, D.S.C. and bar, R.N.R. He had been very successful and had one, if not more, submarines to his credit. He left soon afterwards in command of a mystery ship, and was again successful, in the Channel, and then, most unluckily, was killed.

Scott and I were to work as "opposite numbers," one in harbour, and the other one at sea, each with two smacks. His ship, the "Mascot," was a better one than the smack allotted to me, the "Holkar," an old craft said to be infested with rats and vermin. She had a motor, however, and that outweighed all disadvantages. My first view of her did not inspire me with any great enthusiasm. She struck me as dirty, and she stank of decayed fish. Her cabin was

aft, and contained sufficient bunks for the skipper, mate, and crew. These bunks were arranged round the sides, and were about 6ft. long, and were fitted with sliding doors. In front of them on a lower level lockers ran round the cabin, serving as seats. The table was in the middle, and against the for'd bulk-head were cupboards, and the stove. The galley, in which also stood the boiler for supplying steam to the capstan, was for'd of the cabin, and for'd of that again was the motor on the starboard side. On the opposite side a matchboard cabin was run up for me. Just outside my cabin amidships was the magazine, with the ice-well, fish pounds, and rope and sail stores for'd of it. A hatchway amidships gave access to the deck, and immediately aft of it the 13 pdr. gun stood in a gun-well sunk in the deck. It was covered by a tarpaulin, and was not conspicuous. On the port side was the steam capstan, which did most of the hauling work on board, from hoisting sails to heaving in the trawl. Like all the Lowestoft smacks she was ketch rigged, and had very little free-board, in consequence of which there was usually water washing about the decks at sea.

My cabin was about 6ft. square, and contained a bunk, a seat locker, a table, and a washing bowl, and lamp. There were no means of warming it, and it was a cold, dark, uncomfortable place. However, it had one great advantage in not being a popular resort for the vermin, which preferred the warmer quarters aft. When in harbour I lived on shore, sharing rooms with Dr. Mallam.

The crew consisted of :

Skipper Thompson, D.S.C. with a bar, R.N.R. (T.)

He had been credited with three submarines.

Mate Newson.

Gunner Petty Officer Faith.

Marine Private Clark, R.M.L.I.

Signaller Stevens.

Motorman Boon.

Deckhands Mayhew and Parnell.

One of the most important men on board, if not the most important man, was the cook, Stanley Howse. He was a good cook, and a most obliging, pleasant, and excellent fellow in all ways, but he had been blown up twice, torpedoed once, shipwrecked once, and once wounded by shrapnel, and I was not sure that it was safe to sail with a man with a record like that. However, he was too good an all-round man to part with lightly, even if I had been in a position to do so, which I was not.

At last on the 9th November, '16, all was ready. My cabin had been put up, ammunition, coal, water, ice, food, and carrier pigeons—each smack took out four of these—were on board, and I reported at the Base that I was ready for sea. They told me to go out to the neighbourhood of Smith's Knoll where the fleet was fishing. Just as we were leaving Scott came running down to say that there were mines off the Corton Light Vessel, and that a ship had just been blown up, and that we had better give the spot a wide berth. He did not recognize me in my disguise as a smacksman, and told me to give my "officer" this message.

The first trip was uneventful. We kept as far as possible with the other smacks, and trawled with them, getting moderate hauls of fish. The trawl was usually left down for about four hours, and was then hove up by means of the capstan. As soon as the beam was secured alongside the slack of the net was hauled in by hand, and a strop passed round it. A

tackle block was then hooked into this, and the bag hoisted in over the deck. The fishermen among the crew were always keenly interested in the proceedings at this stage, and the mate, who said very little as a rule, usually let off a few jokes. When the bag was on board a slip rope holding the "cod end" closed was pulled, and the contents emptied on to the deck. Out shot fish, stones, sand, and a variety of debris. As a rule the bulk of the catch was plaice, but soles, roker, and other fish formed a small part. From time to time "weavers" were caught. These fish have poison spikes. A prick from one of these causes large swellings, and has been known to cause death. The fishermen take drastic measures if poisoned, and either cut gashes in their hand and suck the place or else put the finger in boiling vinegar.

The next trip afforded a little mild excitement, as while we were still in harbour, on the point of leaving, distant firing suddenly started at sea. No one on shore knew what it was, but a seaplane sent out from Yarmouth reported that a submarine had been firing at the fishing fleet, and had sunk two smacks. I went to the Base, and asked to be towed out part of the way, as there was very little wind. The drifter "Ocean Reaper" was sent, and took us and the "Boy Alfred" in tow. Lieut. Temple West was in the latter. In the meantime a number of M.L.'s from Yarmouth and Lowestoft had rushed out to the scene of conflict, each of them consuming the usual 56 gallons of petrol to the hour, and Harwich also sent four T.B.D.'s, while other patrols moved that way. There were therefore soon a number of surface craft around, but the submarine lay low, and was not sighted. Our drifter towed us to the Cross Sand Light Vessel, and there cast off, and we pro-

ceeded under sail. At dusk a number of M.L.'s and also a "P" boat passed returning to harbour. They could not give us any information. As soon as they were well clear we hove to, and put a hydrophone over to try and ascertain whether the submarine was anywhere near. It gave a sustained high pitched note as from turbine engines, several turbine engines, the sort of sound which might be expected to be caused by a dozen submarines going at full speed. I was rather staggered, and hardly knew what to do. We seemed to be in the midst of a number of submarines, but nothing could be seen, and if they were there they must be submerged. While I was discussing the matter with the skipper, who was quite as much mystified as I was, the look out, Mayhew, who was blessed with the most wonderful sight, reported a dark lump approaching us from ahead, immediately altering this to four dark shapes. He thought that they were destroyers. This accounted for the noise we had heard on the hydrophone. Rifles were got out, and the gun manned, in case they turned out to be German T.B.D.'s from Zeebrugge, which the skipper was firmly convinced they were. We watched them approach in line abreast, feeling very lonely, and a long way from home. As they swept by in silence we could see from the position of their masts that they were friends. Rifles were returned, and the gun secured. Peace once more reigned, but Mayhew presently sighted another shape ahead. Again we went to action stations.

This time the shape resolved itself into a belated smack which had been fishing miles outside the rest of the fleet. We told them what had happened, and advised them to return to port. All the other smacks had already gone in, and the "Boy Alfred" and

ourselves were the only two fishing that night. The trawl was shot at 10 p.m. and hauled at 3 a.m. The catch was small. Next time it was shot, however, the luck was better, as we struck a gully just inside the bank. It is only 50 yds. wide, and it winds about, making it difficult to keep the trawl in it. The skipper sounded incessantly, and was delighted when the tallow in the recess at the heel of the lead showed "pipey," or sand containing small transparent tubes about $\frac{1}{8}$ " long. This was the food of the plaice, he declared, and later he showed me some of this "pipey" in the entrails of some of the fish caught. His satisfaction was justified, as the catch was a good one.

In the afternoon a drifter steamed up to say that he had been chased by a submarine on the surface three or four miles further north. I never knew whether this was the Fritz, or whether it was one of our own boats returning from patrol. It may have been the Fritz which was still hanging about, and next day attacked the net drifters inside of us, and obliged them to cut their gear and run. A patrol armed with a 3 pdr. went to their assistance, but his gun was so completely outranged by the 22 pdr. carried by the submarine that he had also to retire.

A succession of gales raged during the next period in harbour, and one of the armed smacks, the "Revenge", was lost in Yarmouth Roads. She was sheltering from the weather, but got into difficulties with her anchor. A mine-sweeper went to her assistance, but cut her down, and sank her. The C.O. sent in a laconic W/T message, "In assisting the smack 'Revenge' I have sunk her," and so he had, but he saved the crew.

One night when on the fishing grounds I was hastily

summoned from my damp and chilly cabin, as two white Véry lights had been sighted to the south. This was the recall signal, and I waited for it to be repeated, but no further signal was made, and the question to be decided was whether the two look outs had been mistaken or not. They were so sure of having seen the two lights that I made up my mind to haul the trawl, collect as many of the smacks as possible, and go in. We tried to signal those smacks which were out of reach by hurling flares into the air in series of two, but the result was not a very convincing signal. Still, it was the best that we could do in the absence of a Véry pistol. The nearest smacks we approached and hailed, telling them to return to port. During the rest of the night there were no evidences of active hate, but in the early morning firing broke out near the coast, and at dawn the hawk-eyed Mayhew sighted a Zeppelin to the southward. It appeared to be stopped. As we watched it, it suddenly burst into flames, and fell vertically, leaving a trail of smoke in the sky. In a matter of seconds it was utterly destroyed.

On the 3rd December, '16, when we were sailing out to the fishing ground a big explosion occurred three miles off among a group of mine-sweepers. We were too far away to see what actually happened, but we could only count six ships remaining, and as the unit usually consisted of seven ships, six sweepers and an officer's ship, it looked as if one of them had been blown up. This view was confirmed very shortly afterwards when one of the six turned, and made for harbour. Evidently she was taking in survivors, in this case only one unfortunately, all the rest of the crew having been killed. On our way out we passed the patrol-trawler "Star of the Wave" and the

skipper told us that when the explosion occurred the "Remarco"—that was the name of the ship—simply disappeared. He had seen the whole thing, and was rather distressed. It was, however, not the slightest use to worry, as the matter was not under control. One either hit a mine or missed it. That was the whole matter in a nutshell.

I made a few sympathetic and encouraging remarks to the skipper of the patrol, and went on.

The catches on that trip were very bad. It was getting late for Smith's Knoll. Thompson told me from time to time a great deal about fish, and their ways. He seemed to like to come to my cabin and yarn, though he complained bitterly of the cold, and thought that I had made a great mistake in not having my cabin in the boiler room, as he had recommended in the start. According to him plaice bury themselves in the sand in cold weather. He also said that the sand hardens in north or easterly winds, and softens in south or westerly winds.

On the 9th December I was sent with a navigating party of 15 men to Boulogne to bring over a French fishing lugger, which was to be fitted out as a "Q" ship. Having missed the London connection, owing to the train being delayed by fog, we were obliged to travel to Portsmouth to take passage in a tug which was going over, no other transport being available. We found the tug with some difficulty, and learned that there was no accommodation on board, as she was filled to overflowing by her own men. She was also, as we found out for ourselves, very dirty, and overrun by cockroaches, rats, and other vermin. Altogether the passage over was not a comfortable one, and our arrival in Boulogne in pouring rain was even more depressing. The *coup de grâce*, however, in this

respect was not administered until I had descended, in a poisonous atmosphere of harbour smells, a very long ladder on to the deck of a smack, and had scrambled from thence on to the deck of a decrepit looking lugger lying outside the other. Could this be the "Bayard"? This wreck? Had I to sail this thing to Lowestoft? Sail? Why she had no sails. The polite French marine, who seemed to be in charge of her, said that she had a motor, but unfortunately some of the parts were missing, and it did not "*marche*." Things did not look very encouraging, and I returned to the Naval Base. The S.N.O. was very pleasant, and said that the intention was to tow her over, and not sail her, but that if I thought that she was not seaworthy he would not let her sail. It had not been understood on the other side that she was to be towed. They thought that she was ready for sea, and had therefore sent a navigating party of 15 men. For towing, 4 men would have been sufficient.

Next morning I had another look at her, and found her to be a typical French lugger about 115ft. long. Her only living quarters were in the fo'c'sle, a bare and dirty place. However, it had a broken stove which might be made to work. She had no ballast or boat, and it would have been hardly safe to have towed her across in bad weather, but as things were quiet I decided to risk it. We spent the morning in lashing her spars on deck, and getting her ready for sea, and left the harbour in tow at 1 p.m. At dusk we were off Dover, but there being no lamps on board I did not dare to attempt to get in, but went on to the Downs where the tug anchored, and wound us up to a short stay. They towed us by a 14" manila warp shackled to 45 fathoms of 3½" wire rope

and usually paid out 75 fathoms of the manila, but when at anchor they hove in the manila, and left us on the wire. We could not let go our own anchor, as there were no means of heaving it up again. There was a capstan for doing this, it is true, but the boiler was defective, and steam could not be raised. That night it was borne in on us that we were in for an uncomfortable time. The fo'c'sle was very dirty, and, in the absence of buckets and brushes, we could only clean it roughly with our hands. Moreover, there were no mattresses, beds, or bedding on board, and all we had was a change of underclothes each. Sixteen men was rather a lot for the little place, but the crowding made a certain amount of warmth. A scratch meal was prepared over the stove, and then we turned in, or rather lay down, all except the watchman. It was a cold, hard business, and none slept very much. This was unfortunate as far as the men were concerned, as they had had a bad time the night before, their billets being very verminous, dirty, and uncomfortable.

Next morning I hailed the tug skipper and asked him to tow us to Dover, my orders being to go in there and draw what food and bedding were required, but he replied that he could not possibly do that as his orders were to tow me to Lowestoft. Back to Dover he would not go, and as he had rather the whip hand of me I had to compromise the matter by getting him to tow us in near the beach at Deal, and lending us his boat to go ashore and buy some food. By dark that day we had reached the further end of the Black Deep, and on the next day but one arrived within a mile of Lowestoft, after having anchored for a time off Southwold on account of fog. As we lay there one of our submarines emerged

from the fog on its way in from patrol. The C.O. asked us where he was, and seemed mightily surprised to learn that he was off Southwold. It is not strange that they were rather vague as to their position, as navigation was extremely difficult for submarines on patrol. All day they had to proceed slowly, submerged, often in strong tides, and at night the sky was overcast more likely than not, and stellar sights were not possible. They had often therefore to reply entirely on dead reckoning for their position, and that was very liable to error. One day a submarine returning to port asked a patrol the name of a Light Ship which was in sight. The patrol told them, and was then asked the further question, "Are you sure?" after a pause during which the submarine people were plainly trying to square their actual position with the one in which they thought they were.

There was no tea or supper that night, and no breakfast next morning, as the food supply had run out. On arrival all clothes were collected, and fumigated, and a number of the men went to hospital suffering from chest and throat troubles. I was laid up for a couple of days with laryngitis.

In December, '16, it was decided to take my 13 pdr. out, and replace it with a 6 pdr. The 13 pdrs. were required for the defensive armament of merchant ships. I was very sorry to see it go, as though it was not much use against a 22 pdr., having a much shorter range, the 6 pdr. was even worse. The latter was only effective against a submarine at point blank ranges. It had not enough penetrative power at even moderate ranges. Of course the smacks were not expected to fight pitched battles with the submarines, but, granting that, a 6 pdr. was a poor

tool. By the 2nd January, '17, the 13 pdr. had been taken out of the "Holkar," or as she was then named, the "I'll Try," the gun-well had been filled in, the deck made good, and the 6 pdr. put in. On the 16th January the 6 pdr. was taken out, the deck cut up again, the gun-well let in, and a 13 pdr. put back.

In the meantime I was in another ship, as on the 2nd January Lieut. Scott had been appointed to the command of the "Q" ship "Bayard," the lugger which I had brought over from Boulogne. She had been thoroughly fumigated, and cleaned out, ballast had been put in, and accommodation provided for the crew. Guns had also been mounted on deck. She went to the Channel, where Scott sank one submarine, and rumour said two, and shortly afterwards was herself sunk, and Scott was amongst those killed.

As soon as Scott left the "Mascot" to take over his new command, I moved into her, as she was a better ship than the "I'll Try," ex "Holkar," which was old, dirty, and slow, while the "Mascot" was new, clean, fast, and a very fine seaboat. More important still, her skipper, Crisp, was very keen. So far he had had no dealings with submarines, and he was most anxious to account for one at least. Another advantage was that my cabin there had a small steam heater, which kept things dry. In the "I'll Try" my clothes and blankets were always damp, and the cabin itself chilly. Under these circumstances I did not hesitate to change over, though I was sorry to leave the men, as they were a good crowd. Most fishermen are. Their habits and language want getting used to, but they themselves were real men.

I only did two trips in the "Mascot" and then left her to sail under Lieut. M——, R.N., in a 200 ton three masted iron schooner, the "Result," which he was fitting out as a "Q" ship. Soon after I left, Thompson and the crew of the "I'll Try" went to the "Mascot," and Crisp and the crew of the "Mascot" went to the "I'll Try." In less than a month the "I'll Try" (Skipper Crisp), and the "Boy Alfred" (Skipper Wharton) were both in action with submarines at the same time and place. The submarine which tackled the latter came to the surface within hailing distance, and was sunk. While this was going on the second and larger submarine was dodging about submerged around the two smacks. Apparently he got confused between them, and mistook the one for the other. Anyway after a great deal of manœuvring he worked on to the bow of the "I'll Try" and fired a torpedo from a distance of about 200 yds. This missed by 9 ft. The submarine then came to the surface, and passed along the smack's beam. It was practically a sitting shot, and the smack's gun-layer, Ross, pumped shells into her. Badly holed she canted slowly forward, and brought her stern clear out of the water, and then sank to the bottom. It almost looked as if the torpedo had been fired by accident; in the first place because it missed at a such short range, and in the second because immediately after it had been fired the submarine came to the surface, suggesting that compensation had not been made for the alteration in trim resulting from the absence of the torpedo. Anyway it was a most satisfactory affair, and, happily enough, occurred on the first day of the Germans' intensified submarine campaign. Though bitterly disappointed that I had not been there, I was very glad that Crisp

had at last been successful. Unfortunately he did not live long to enjoy the honour he had gained. A few months later, while still in the "I'll Try," then called the "Nelson," he was attacked at long range by a submarine carrying a 4.1" high velocity gun. Crisp put up a grand fight with his wretched little 13 pdr., but was, of course, hopelessly outranged. The submarine kept well clear, and was soon getting hits. The smack was struck in the bows, and beginning to sink, when a shell hit Crisp in the lower part of his body. It did not explode. Crisp was mortally wounded, but his thoughts were for the ship and crew, not for himself. He encouraged his men, and dictated a message to be sent in to the Base by carrier pigeon. As all the ammunition had been expended, and the smack was sinking, he told the crew to abandon the ship. For his conduct on this occasion he was awarded the V.C., and his son, who was also on board, got the D.S.M. After suffering considerable hardships the survivors were picked up by a patrol three days later. They were more lucky than the crew of the "Ethel and Millie," another of the armed smacks, who were attacked by the same submarine on the same day. She was armed with a 6 pdr. only, and was therefore even worse off than the "Nelson." As in their case she was compelled to open fire at long range, for she was getting knocked about. When all the ammunition had been fired off the crew abandoned the ship. The submarine then steamed up to them, and took them on board, and they were last seen by the crew of the "Nelson" ranged up on the foc's'le of the submarine, which was then going to the east. Nothing has since been heard of them, and the inference is that the submarine dived leaving them on deck, and so drowned them all, a truly

barbarous deed. No civilized nation would behave in such an inhuman way.

To return. When Lieut. M—— asked me to join him I was very undecided for a couple of days, as to have a command, even if it were only a smack, was in the ordinary way better than to be a subordinate officer. On the other hand I thought that I might do more useful work with him in the schooner, as the day of the armed smack seemed to have gone. The schooner scheme appeared to be a much better thing altogether, and I finally accepted his offer.

CHAPTER IV

"Q" SHIP "RESULT"

LIEUT. M—— had seen service with the Harwich destroyers and at Gallipolli, and had taken part in the landings. He was subsequently invalided out of the service. On leaving hospital he was taken on to the Emergency List, and appointed to the command of the armed yacht "Lady Blanche" at Milford Haven. While there he contracted pleurisy as the result of exposure, and had to go to hospital again. When cured he was appointed to the Lowestoft Base for "Light shore duty," and managed to persuade the authorities that the command of a sailing "Q" ship came properly under that heading.

Beyond a passing pang at having missed being present at Crisp's and Wharton's action of the 2nd February I never regretted my decision to join the schooner. As far as food and personal comfort were concerned she was no better than the smacks, if anything rather worse, but she was a "happy" ship, and there seemed a good chance of doing useful work in her. We all had the greatest confidence in our C.O., and felt that he would make the most of any chance that occurred.

As armament she carried two 18 cwt. 12 pdr. guns, one forward and one aft of the mainmast, in gunwells sunk into what had been the cargo hatches. They were very inconspicuous, and ships have come

right alongside, and not noticed them. The bulwarks opposite to them on each side were cut, and could be lowered when in action. In addition she had a 6 pdr. gun on the port side for'd, and two fixed 14" torpedo tubes aft, one on each quarter. These pointed astern at an angle of 30° to the line of the keel. The galley was on deck just abaft the foremast. The R.N.R. (T.) ratings, mostly fishermen, lived in the fo'c'sle, and a mess deck for the active service ratings was put up in what had been the for'd hold. An alleyway led from the messdeck to the magazine amidships, and continued through it to a ladder giving access to the deck. Lieut. M—— and I had a cabin aft of the magazine on the starboard side of this alleyway, and on the opposite side were the W/T cabin, and another used at first by the sailing master, J. Reid, and later turned into a storeroom. In M——'s half of the cabin were a bunk, seat, table, lamp, looking-glass, and washing basin, while my half was similarly fitted, except that there was no washing basin. A stove stood in the middle, and was supposed to divide it into two cabins.

Aft of the mizzenmast was a companion way leading to the engine room, and to a very small cabin where we took our meals. The engine was a hot bulb paraffin motor giving a speed of about 3 knots, just enough to manœuvre with when in action. A small Douglas engine on deck supplied the motive power to the W/T dynamo, and the triatic stay was turned into an aerial. We could send messages about 40 miles, and could; of course, receive them from much greater distances.

Steel air bottles were also fitted containing air compressed to about 1,800 lbs. to the square inch for "topping" up the compressed air in the torpedoes,

By way of ballast 100 tons of sand were taken on board. This was not ideal ballast, as it meant that the ship had no reserve buoyancy, and would start to sink should the hull be pierced by a shell.

A small boat, capable of taking nine men, was carried in davits over the counter.

For variety and disguise we went out sometimes as a topsail schooner, i.e. with yards and square topsails on the foremast, and sometimes with fore and aft topsails only. The sails were also changed from time to time, and were white on some trips, and tanned on others, or half and half. Stringent rules were also made as to the number of men who might appear on deck at one time, as the ordinary coasting schooner of our size would only carry about five men and we had to conform to the habits of coasting vessels in every respect. Of course no one appeared in uniform, and all wore what they liked, and the older the clothes were the better. Lieut. M—— had a great idea that the proper headgear for a coasting skipper was a hard felt hat, and he appeared in one which would have graced Bond Street. He was very reluctant to give it up, and before doing so knocked a hole in the top to allow his hair to appear through the opening, hoping in this way to make it more convincing, and to discount its stylish shape. But he had to give it up in the end. The men took to wearing hard hats, and he felt that he could not compete.

Altogether there were 23 men on board, of whom 11 were active service ratings, and the rest R.N.R. (T.), mostly fishermen, with a few from the coasting trade. They were all volunteers, and were a good crowd. Only volunteers were taken in these "Q" ships. The notice asking for volunteers stated that the work

was " hazardous, at times monotonous, and not free from discomfort." The last clause was correct at any rate. Extra pay was offered, which the men called " danger " money, but which was really extra " hard lying " money. This allowance is usually given to those serving in small ships, which are crowded, and very uncomfortable, especially in bad weather. It varied with the class of ship, submarines and " Q " ships getting the highest rate.

Fitting out, which by the way was done alongside an open quay so that every one in Lowestoft knew about us, was a long affair, and it was not before the 3rd February, '17, that we were ready for some of the trials, and incidentally were hotly chased by a patrol, who evidently thought that it was unseemly for a coaster suddenly to start firing guns. He belonged to Yarmouth or he would have known who we were.

Four days later we ran the torpedoes. One would not start, and the other would not stop, but ran for three miles at a slow speed. We captured it in the end. The trouble was found to be caused by ice in the works.

On the 9th February we left for our first trip. I was full of high hopes, and expected to have a share in great doings. I placed a lot of confidence in the torpedoes, which they were far from deserving. M—— said nothing to damp my enthusiasm, and appeared outwardly to share my hopes, but he had been in action several times and had had a good deal of experience, and no doubt had his own opinion on the subject. I doubt whether he really expected to see the fulfilment of the vision of enemy light cruisers—T.B.D.'s were too paltry—mortally wounded by our deadly " mouldies," and sinking. I doubt whether I really believed that myself.

It did not take us long to realize how true had been the description that the job was not free from discomfort. Though rather crowded the men were not quite as badly off as we were, as our little cabin aft where we had our meals was always full of acrid fumes from the blowlamp in the engine-room. This blowlamp had to be kept going continually to keep the bulb hot, and emitted a constant roar, and at times the most noxious fumes. Otherwise we were not so badly off except that the cabins leaked like sieves, and the cooking was poor.

The handling of the ship gave no trouble. The fishermen were all used to sails, and there were quite a large proportion of the active service ratings who had been in sailing ships in the Persian Gulf. In addition there were J. Reid, the sailing master, and Palmer, the mate, both of whom were schooner men. The latter of these went into hospital at the end of the first trip suffering from chill, and J. Reid left soon afterwards to go to a trawler. Ultimately we abolished these two positions, and put the petty officer and the two leading seamen in charge of a watch each while the C.O. and I worked watch and watch, one of us being always about. One small alteration had to be made at the end of the first trip. The point at which the ship pivoted was too far aft, and she would not "stay," or in other words come round when close hauled. This fault was cured by moving some of the ballast further forward.

In light winds she was slow, but got along fairly well in strong breezes.

Nothing much happened on the first trip. The next time we went out in a dense fog. The people at the Base thought that fog was what we wanted when at sea. "A submarine might run into you,"

they said. There certainly was a chance that something might run into us, but it was not likely to be a submarine. However, no doubt they knew best, and we went. Off the Shipwash Light Ship a bunch of destroyers missed us by a few feet, but after that we got clear of the traffic, and made for the North Hinder Lightship. While we were wending our way slowly northward one of the torpedo ratings, an A.B., accidentally fired off one of the torpedoes. It leapt out of its tube, crashed against the bulwark, burst open the port, and disappeared in a cloud of smoke. The A.B. danced on the deck, and waved his arms in despair. It is a serious thing to lose a torpedo, and later on in port a Court of Enquiry sat to consider the matter. All who were on deck at the time appeared as witnesses. The C.O. went in first, while we waited outside. He was asked what steps he had taken to recover the torpedo, and how often the men were drilled at the torpedoes. He replied that being on special service he had not taken any steps to recover it, and for the same reason never had any torpedo drill, and that, moreover, his torpedo ratings were trained men, and drill was not necessary. These reasons were held to be sound. The A.B. was then sent for. " Now tell us," they said to him, " how often do you have torpedo drill in your ship ? " " Every day, sir " stoutly replied the A.B. The Court smiled grimly. The A.B. left feeling that he had done his duty and supported his Officers, and the L.T.O. was actuated by similar ideas when he came to the C.O. on our return to port and asked him what reply he was to make if questioned about the missing torpedo. He was quite prepared to swear that it had been fired at a Fritz, or make any statement indicated and in so doing would have felt that

he was doing the right thing. Any other course, such as telling the truth, would have seemed to him dishonourable.

It was while on this trip that we were encouraged by sighting a periscope. There had been a dense fog all the morning, but in the afternoon it cleared slightly, and it was possible to see for a mile all round. One of the hands suddenly sighted a periscope on the starboard bow. The alarm was given, and the men crawled to action stations. The periscope appeared again on the beam, and then astern, finally coming up on the port quarter. I cannot say that I saw it myself, but several of the hands made it out. We waited for developments, which might be expected to take the form of a torpedo, but nothing came, and the engineman, Macalpine, found that he had put on his pink blouse and toque for no purpose. His position in action stations was at the head of the engine room companion-way, clad, as to the upper part of his body, in feminine attire. We hoped that Fritz would conclude that the skipper's wife was on board, and, being by nature a boastful animal, would come alongside to play the heavy conqueror. With the same idea a skirt, a blouse, stockings, and bloomers hung on a line stretched between the main and mizzen shrouds. We pinned great faith to these as a guarantee of our peaceful character. On this occasion, however, Fritz remained coy, and after hovering about submerged for an hour went off.

At the beginning of March we were sent out to make a tour round by the North Hinder Lightship, up past Smith's Knoll, and then to the Dogger Bank. "Don't be away too long" the S.N.O. had told M——, "I am always very anxious when you are out." M—— was pleased at this evidence of interest on the

part of the S.N.O., and told Captain B——, the second in command at the Base about it. The Captain laughed heartily, and said " That's good. Why last time you were entering the harbour I went to him and told him the ' Result ' was coming in, and he said, ' Coming in? I did not know that she was out ! ' " Apparently his anxiety was not very acute after all, as it had not even caused him to take the trouble to find out whether we were safe in harbour, or at sea.

The first three days out were quiet, but on the morning of the fourth day it began to breeze up, and in the early hours the flying jib had to be taken in. An hour later the outer jib was stowed, and the mizzen, main, and foresails reefed. At dark a heavy S.E. gale was blowing, and things were very uncomfortable. The C.O. decided to heave to, as the ship was then clear of minefields, and also clear of the S.W. Patch on the Dogger Bank.

The inner jib was stowed, staysail hauled to windward, another reef taken in the mizzen, and mainsails, and the foresail lowered. The latter made a gallant fight of it, and it took two watches to subdue it. The helm was then put down, and she came up to the wind. The sea was by this time very high, the heaviest I had yet seen in the North Sea, and she rolled, and wallowed. She was perfectly safe, but very uncomfortable. The worst feature was the way the decks leaked. This was not, of course, the fault of the ship, but arose from bad shipwright work, but it made things very uncomfortable. Water poured in streams into our cabins, and into the storerooms and magazine under the gun-wells. Reid abandoned his cabin and went and established himself aft. All our clothes were wet, and we had to do our turn on

deck wet to the skin. Every four hours the ship was pumped out, a job which took about half an hour each time. Meals became dreadful affairs. Cooking was out of the question, but tea was made, and we managed with that, and tinned meat. Our marine servant was ill, but one of the deckhands, Ward, looked after us and brought the tea. His round, cheerful face appearing in the doorway was quite a tonic. The meals themselves were great scrambles. The table cloth was filthy with spilt tea, and tea leaves, and scraps from the plates, and everything seemed to have been in contact with either the butter or the marmalade. Things had reached such a state of chaos below that it became rather amusing, but the watches on deck were not so pleasant. There was not much to do there beyond seeing that nothing carried away. The first few minutes usually sufficed for water to get into one's boots, and after that nothing much mattered. It was only a question of endurance then, and of dodging the waves which leaped playfully over the rail from time to time. A fine, big fellow crashed on to Capps, one of the deckhands, as he made his way forward. He disappeared from view. Some one shouted out that he had been knocked down, but I could see his yellow oilskin, and knew that he would come into sight again shortly. The water cleared away, and there he was clinging to the shrouds. He seemed to look on the affair as a joke against himself, and turned to see if we had noticed the incident. He was amused, and went forward chuckling to himself.

In the afternoon a fine steam trawler came rolling towards us. She was on patrol, and having sighted us came up for a closer inspection. We hoisted a signal, "What is my present position?" According to

calculations we had been making 2 miles of leeway, and half mile of headway in the hour since we had been hove to, but the C.O. thought that it would be as well to verify the estimated position. The trawler, the " Lordship," replied, " 55° north latitude, 56' east longitude," and on our making " Thank you," hoisted, " I wish you a pleasant voyage." Perhaps the skipper was indulging in a little playful sarcasm. I expect that his signalman laughed as he looked out and hoisted the flags. The position given was 15 miles N.E. of our estimated position, a difference which was not surprising considering that we had not been able to get any sights for the two previous days, while our speed, leeway, set, and strength of the tides had to be estimated.

We had then been hove to for nearly 24 hours, and the barometer was still going down, and the weather getting worse. The C.O. decided to run for shelter. But where could we go? The air was thick with driving spray blown off the tops of the waves, and, moreover, no shore navigating lights were exhibited. It would therefore be madness to run for any of the ports on the coast, as that would be running for a lee shore, which would be invisible when we reached it. We wanted somewhere with a wide entrance, and the Firth of Forth, 140 miles away to the north-west, was the only place that we could safely make for. At 5 p.m., therefore, sheets were slacked off, and the helm put up. She soon paid off and gathered way, and staggered along at 8 knots in a series of wild lurches. Seas caught her under the counter, and sent her reeling off her course, and the helmsman had a busy time. Seas with breaking tops climbed on board most of the time, and in the evening a real big fellow arrived. For some reason

I looked round while standing aft near the helmsman, and saw a wave close to the starboard counter, and just about to break. It towered above me, and came bodily on board, beating me to my knees, Volumes of water poured into the engine room, and wild Scotch curses from Macalpine, and steam poured out. Soon after midnight the ship was gybed, and a course set for the Longstone Lighthouse. This alteration made mine a lee bunk, and a stream of water on to my face called my attention to the fact. Water was coming down the ventilator, and the hatch was also making a generous contribution. I turned out, rescued my clogs, which were floating about, and waded along the alleyway to the mess-deck. Things there were in a state of great confusion, and the place was full of wet clothes hanging on lines. One watch was just coming down, and I sent one man aft to screw down the ventilator. I then turned in again for the balance of the watch. The C.O. remained on deck all through the middle watch, in case we were rather further west than we thought, in which case we were likely to go ashore about that time. At 4 a.m. that danger still existed, and I warned the look outs to keep their eyes open. At 9 a.m. the Longstone Lighthouse was sighted well to port, so our course had been about right after all. We had still a long way to go, and if we were to get in before dark something must be done to increase the speed. The C.O. decided to set the lower topsail. This steadied her very much, and sensibly increased our pace. At 3 p.m. May Island was due. We were very anxious to sight it ahead, so that we could pass it on the north side, as the south side had been mined by enemy submarines. But at 3 p.m. nothing could be seen through the driving mist. Half an hour later,

however, land appeared on the starboard beam, May Island at last, but on the wrong side! It was too late to do anything in the way of altering course. If the mines were still there, we were among them, and must take our chance. Only the C.O. and I knew that there was any danger. We passed safely through. By 7 p.m. we were through the boom, and had anchored in Aberlady Bay. It was an immense relief to get in, and to take off our wet clothes, and have a rough bath by a warm fire.

They told us at Granton, when we got there, that the gale had been a very severe one, and had done a lot of damage on shore.

After a few days spent in making good some defects we sailed again on the 12th March. Two days later the alarm gong sounded. A submarine had come to the surface $1\frac{1}{2}$ miles away. It was, however, a British submarine returning from patrol, but next day we came across a Fritz, and had our baptism of fire. The wind was freshening at the time, and we were just lowering and stowing the topsails when a submarine was sighted coming up astern, and immediately afterwards the report of a gun was heard. In a few seconds the men were at their stations, but only five showed on deck. The C.O. ordered the helm to be put down, to bring the ship into the wind, and the headsails to be hauled down. While this was happening shells were dropping around, and bursting. One of them grazed the flying jib stay, and went on making a most curious whistling noise. The submarine commander refused to accept our apparent surrender, and continued firing steadily from a distance of 2000 yds. The C.O. then ordered the panic party to abandon ship. The men in " Q " ships who were told off to abandon ship when in action were

termed the "panic party." They were practised in showing the proper amount of scare. On this occasion they made a gallant attempt to capsize the boat when lowering it. We thought that this would give a realistic touch to the affair, but the boat refused to capsize and righted itself when it reached the water, and they had to get into it as it was. Reid and four hands were then in the boat, and they were supposed to represent the whole of the crew, while the ship was lying head to wind with the sails flapping, and apparently deserted. No one showed on deck, but below the bulwarks were the three guns' crews lying alongside their guns, the L.T.O. alongside his torpedo tubes, the engineers standing by the motor ready to start it when required, while the C.O. perambulated the deck on his hands and knees watching the course of events through holes in the bulwarks, and I sat on deck at the wheel trying to keep the ship in the wind so as not to get too far away from the boat. As soon as the latter left the ship the submarine ventured to approach to 1000 yds., but would not come any closer. They went on firing from that distance for some time without hitting the hull or a spar. The sails and gear were cut about by shells and splinters, but as long as nothing vital was hit we could continue to lie low in the hope that it would come nearer. But that was just what it had not the slightest intention of doing unless it could first get hold of the boat. That, on the other hand we could not allow, as with the boat alongside them we should not be able to fire should an opportunity occur. Things therefore remained at a sort of deadlock.

Reid rowed about first in one direction, and then in another, as if he did not know what to do for the best, but he took care to keep within 200 yds. of the

ship. He said afterwards that he felt very lonely with a large and hostile submarine in his immediate neighbourhood, and the ship tending to work away from him. Never had the latter seemed to him so desirable. He even found time to admire the beauty of her lines. Then the submarine turned its gun on the boat, possibly with the idea of inducing it to approach, but it had the opposite result, and Reid rowed away. After firing three shells, the first of which went short, the second over, while the third nearly hit it, the submarine commander seemed to come to the conclusion that the men in the boat were too much upset to understand what was required, and turned his attention to the ship once more. Our ordeal had started again. The C.O. on hands and knees, with his eye to a hole in the bulwarks, watched the firing in an impersonal and critical spirit. He considered that it was bad. The submarine was only 1000 yds. distant, and, though there was a nasty short sea which caused it to roll a good deal, he thought that it should have done better. It was firing about one shell short to about three over. “ Ah,” he said once, “ that was better. That very nearly hit the counter.” As I was sitting at the counter, it did not strike me at all as an admirable effort on their part. On the contrary; while added to the feeling of personal insecurity caused by shells and fragments of shells hurtling past one’s ears, was a distinct feeling of humiliation. It was true that that was what we were there for, and it was all part of the game, but somehow it did not seem right to be sitting in water at an idle wheel, doing nothing, while a submarine plugged shells at the ship for what seemed an interminable time.

At length after the firing had gone on for 45 minutes, and the submarine commander seemed as determined

as ever not to come any nearer, the C.O. decided to try and wing him as he was within easy range, and accordingly gave the word to open fire. The White Ensign shot aloft, the engine was started, down crashed the bulwarks, and round came the guns. The submarine had taken alarm at the first movement, and was doing a crash dive, but the aft 12 pdr., Gunlayer W. Wreford, A.B., hit him at the base of the conning tower at its junction with the deck, and the 6 pdr., Gunlayer H. G. Wells, A.B., also hit the conning tower higher up. The second shot from the 12 pdr. missed. In 30 seconds the submarine had disappeared. Had we sunk it? We knew that the 12 pdr. had hit it, and that in a good spot, but beyond that it was impossible to say anything. If it were still in fighting trim, it would almost certainly try and torpedo us, but though it had plenty of opportunities of so doing while we were picking up the boat, and though we sailed up to the spot where it had disappeared, we saw no more of it, and the conviction grew that it must have been destroyed, or at least badly damaged, or it would not have taken things lying down. After searching the area, and finding nothing, we resumed our course. Whether we had sunk it or not, we had at least given it a lesson in gunnery. Unmolested and firing at its ease it had failed to score a decisive hit in three quarters of an hour, while our first two shots had both hit, in spite of the fact that the guns had to be trained round from a fore and aft position to one on the beam. The for'd 12 pdr. had not fired. It could not be brought to bear in time.

As the wind was increasing, and looked like getting worse, the C.O. decided to make for the coast, so as not to have a minefield under the lee in case of a gale.

As soon as the ship was on the new course a submarine appeared ahead. At first we thought that it was our late opponent come to life again, and the ship was headed straight at it. But, as we were to discover shortly, it was not the same submarine but another one, and our alteration of course had evidently greatly puzzled the commander. When less than half a mile away he fired a torpedo to clear the air. It missed. He then opened fire. At the first report it was clear that we had to do with a fresh submarine, the note of the gun being quite different, but we had by then committed ourselves, and it was too late to think of abandoning ship, or acting the part of an innocent coaster, and word was passed to open fire. The first two rounds both missed fire, and by the time the cartridges had been extracted the submarine was diving, and almost out of sight. However, the gun-layer did get off one round, a snap shot which missed. There was then no reason to wait about, as the submarine would not come up again, and the ship was kept on her course.

And so ended our first scrap with a submarine, the battle of the South West Patch as we called it from the name of a neighbouring sandbank.

The sails and ropes were a good deal cut about—there were 13 holes in the foresail alone—and we sailed down the coast in the direction of our port to refit. As Smith's Knoll was not much out of the way, the C.O. decided to have a look round there to see if anything was on foot. When nearing it at 11 p.m. the alarm gong sounded. The C.O. started from sleep under the impression that some one was testing the circuits, but quickly realizing that this would not be done at that hour he rushed on deck, and found a scene of some confusion. The night was dark, and a

fresh breeze was blowing. The guns' crews worked feverishly to clear away their guns, and to add to the difficulties of the position, the helmsman accidentally gybed. As a result the three booms dashed noisily to and fro and further complicated matters.

"Where is the submarine?"

"On the port beam, sir," replied the officer in charge of the deck in a hoarse whisper, anxious not to alarm the game.

Then, the seaman coming suddenly uppermost, he shouted an order to the helmsman in a loud voice. No submarine, however, was to be seen on the port beam, or anywhere else, and it was, of course, hopeless to chase with a sailing ship in the dark. The two look outs were cross-examined as to what they had seen.

"A black object close aboard about the size of a conning tower."

"Was it under way?"

"No, sir, it seemed stopped."

A black object, about the size of a conning tower, stopped. It sounded as if it might be a buoy, and on running out roughly the estimated position, it was seen that we were due to pass a black buoy about that time. This seemed to settle it, but to make quite sure the ship was hove to and the hydrophone lowered over the side. It gave the usual water noises, but no sound of a propeller. It must have been the buoy, and the men were dismissed, and the watch below turned in again.

Two days later we were in port having the damage made good.

For his share in the scrap Lieut. M—— was mentioned in despatches, as was also J. Reid, who went away in the boat, and a letter from the Admiralty

expressing the approval of My Lords of the behaviour of the ship's company was also received at the Base.

Some months later a very accurate account of the scrap, written presumably by the commander of the submarine, fell into the hands of the authorities, and the inference is that either U.C. 45—the number of the submarine—got home, or that the crew did, possibly on board the second one.

On the next trip there was more excitement. We first made our way to the scene of the last encounter, but drew blank. A heavy gale then forced us to take shelter in the Wash. On coming out we made our way to Smith's Knoll without seeing anything. At 4 a.m. on the 5th April, '17, we had passed it, and were on our way to the North Hinder Lightship. It was rather thick, and the wind was very light. I had had my usual two cups of tea and was feeling very pleased with life in general, and especially with the prospect of a whole night in my bunk that night, when war's rude alarms were suddenly forced on my notice. A large submarine, which looked in the mist as big as a T.B.D., appeared ahead, and then as rapidly disappeared. The alarm was given, and there was a bustle for a few minutes, and then quiet. Every one was at his post. The C.O. came on deck, as imperturbable as ever. He sauntered up to me in a casual sort of way to persuade the submarine, should it be watching through its periscope that it had not been sighted. With the same object the cook went to the galley and started preparing breakfast, while two of the hands scrubbed down. Just then a small upended spar was seen 100 yds. on the port bow. It showed 2 ft. clear of the water, and from the top a slight rod projected for another 4 ft. and terminated in a square lump 6 in. in diameter. The lower portion might be

a periscope, but what was the upper part? As we looked, it slowly dipped, and disappeared. It evidently was a periscope. A few minutes later it rose on the beam, but that time without the upper part, dipped after a short interval, showed on the quarter, astern, and on the starboard side. At each appearance it showed for about a minute, and then sank out of sight. This behaviour was rather disconcerting. To be closely examined in that indecent way through a sinister looking periscope was as trying as being looked at through binoculars from a distance of 50 yds. After the submarine had examined us at its leisure from all points of view there was a pause of nearly half an hour. What was to be the next move? Had it gone off altogether, or was it working into position to torpedo us which it could have done quite easily, or was it working away under water to a distance with the idea of coming to the surface a few miles off and shelling the ship? The C.O. thought that it was doing the latter, and that all we could do was to wait. The motor was started for manœuvring purposes, and then we sat still, and thought of many things. To reduce the number of men showing, Reid took the wheel, the C.O. represented the skipper, two hands worked about the decks, and the cook went on with the breakfast. I sat in the engine room hatchway out of sight with a notebook ready to record events. Suddenly a shell burst alongside followed by others, but no submarine was to be seen, and the C.O. could not make out from which direction they came, until he caught sight of a flash under the sun. In that position the submarine was quite invisible, while the ship made a perfect target with the sun full on her sails, and white hull. This submarine seemed to be a much more businesslike fellow than the others we

met on the last occasion. For one thing it had a bigger gun, 4.1" semi automatic high velocity, with an effective range of 13,500 yds. The shells arrived at terrific speed, and burst with an extremely vicious sound. It was firing fast and accurately, and after the first two or three shots was well on the target. The "panic party" was ordered away, but before they could get clear a shell struck the ship amidships right on the waterline, penetrated the hull and burst inside, reducing the W/T cabin and the storeroom to matchwood, and wrecking and setting fire to the magazine. There were two men of the ammunition party in there at the time, and one of them, Morris, was hurled right down the alleyway on to the stove in our cabin, and injured his back, while the other, Ryder, had the upper bone of his arm shattered and smashed to splinters, and was also wounded in the back. The next shell burst just short and flung sheets of water over the ship wetting every one to the skin at the same moment. A universal gasp went up. The water was very cold. The position was not very satisfactory. The ship had no reserve buoyancy, and the water pouring in through the hole in the side was already beginning to affect her. Reid, still at the wheel, found her slow to answer the helm and stated in a doleful voice: "She is sinking, sir." Dense clouds of smoke were pouring out of the hatches leading to the magazine. Some action seemed called for. It was not the slightest use sitting with folded hands, waiting either to sink or blow up, whichever should happen first. We might as well have a run for our money, and the C.O. gave the order to open fire. The gun-layers could not see the submarine, hidden as it was in the mist under the sun, but they put 6000 yds. on the elevating dial, and fired over open

sights at the horizon in the direction the submarine was supposed to be. Each gun fired two rounds, and then stopped, as the submarine had not replied. It ceased firing immediately we opened up. There is no reason to suppose that any of our shells hit it, or even went near it. Submarines never fought it out on the surface as long as they could dive and escape in that way, and this one very likely started to dive as soon as he saw the flash of the first round without waiting for the shells to arrive. Its next step would probably be to come closer and torpedo us, but that we could not help; and in the meantime we had a few minutes to attend to the wounded, try and plug the hole in the side, and tackle the fire. The C.O. bandaged Ryder who had been pulled out of the magazine, and who lay motionless on deck, so still that I thought he was dead, while I set two hands to try and stop the leak with a couple of coal bags, and a wooden shot hole plug. One of them went over the side and adjusted the bags and the plug, while the other hammered it home with the back of a long handled axe. I then went to see about the fire, as I expected that she would blow up if nothing was done. The place was full of smoke and fumes, and it was impossible to see anything. After stumbling about among the debris I found smouldering rockets and other things, but no active fire, and then returned to the deck, as the submarine was reported to have turned up again. It kept dead astern and watched through its periscope. If we had had more speed we might have been able to turn sufficiently to bring one of the torpedoes to bear. It would not run deep enough to hit the hull of the submarine, which was 25 ft. below the surface, but it might by a happy chance have hit the periscope, which would have done as well

As it was, with our slow turning speed the Fritz was able to keep astern, and we were not able to bring anything to bear. The only thing left was a small 40lb. depth charge. At 200 yds., of course, it would not do it any damage, but it might keep it amused for a few minutes, and put off the moment of the firing of its torpedo. So over went the depth charge, and made quite a considerable stir for its size. Unluckily our low speed prevented us from getting altogether out of the sphere of its influence, and when it exploded at a depth of 40 feet the ship got a rude shock which started some of the rivets aft. The submarine did not seem to like it either, and dived. But the evil moment had only been postponed. It was bound to get us in the end, unless something quite unforeseen happened. Yet no one seemed in the least perturbed. The men had the greatest faith in the C.O., and waited calmly for orders, sure that he would pull them through somehow. It made an immense difference having a man like that in charge. He was always cool, and cheerful, and inspired every one with confidence. When things were at their worst he was at his best. On the present occasion, things did not seem bright at that moment, but they were soon to change their aspect, for out of the mist ahead burst H.M.S. " Halcyon " and two " P " boats, coming along at full speed. The submarine must have heard them on its hydrophone and cleared off, as its periscope was next sighted, some time later, three miles to the southward. Our rescuers did not approach but zig-zagged about on the horizon, disappearing into the mist at one place and coming out of it somewhere else. We wanted to report that there was a submarine around, and to ask for a doctor, but they were too intent in rushing about trying

to find something to strafe to pay much attention to us.

At 6 a.m. the world seemed to hold only a large and aggressive submarine and ourselves, but the place soon began to be thickly populated. In addition to the "Halcyon" and the two "P" boats, rushing furiously about, three light cruisers with their attendant T.B.D.'s came into sight from the east. They swept by at a great pace and passed out of sight in the direction of Harwich. We tried to signal them for a Doctor, but they evidently regarded us with suspicion, and took no notice. Hardly had they gone than their place was taken by T.B.D.'s from Harwich, dozens of them. They seemed all over the place. It was a stirring and wonderful sight. Wherever one looked some of these graceful craft were dashing along, zig-zagging about at full speed. At that time the Zeebrugge T.B.D.'s were very troublesome, and the Harwich flotilla was fairly out for their blood. When therefore the "Halcyon" sent in a W/T message that she was making for the sound of firing to the east, the Harwich crowd rushed out, hoping that it was the Germans, and were on the spot in less than three quarters of an hour.

With a considerable portion of Britain's light forces round us we could take things easily, and complete the plugging of the shell-hole, pump the ship clear of water and see to the magazine. But first we had to get hold of a Doctor. H.M.S. "Torrent" stopped long enough to lower a whaler with a doctor, and then rushed off again, until the boat had collected Ryder and was ready to be hoisted again. The C.O. and I were glad to see Ryder in the hands of a Surgeon, as we feared we had given him too much morphia. One pill did not seem to have any effect, and, as he

was in great pain, we gave him another one, and that seemed to have overdone things. Eventually Ryder made a good recovery. The surgeons put a silver plate in to replace the bone. The arm is stiff, but the wonder is that he has an arm at all.

As regards the fire in the magazine, when the place came to be cleared up it was found that a number of patent fire extinguishers which were kept there had all been smashed by the explosion of the shell, and it was supposed that the fumes thus liberated had put out the fire.

Months afterwards we heard that the submarine had photographed us. The curious lump on the end of a stem which had been noticed the first time the periscope appeared was a camera.

Next time we went out one of our own submarines went with us. The idea was that we should sail along in the ordinary way, and that the submarine should follow us submerged. If we were torpedoed the Fritz would very likely come to the surface to contemplate his work, and our mate would then have a good chance of getting it. Again if Fritz attacked us by gunfire we were to endeavour to draw him towards our submarine, who would be in a good position to attack. A code of signals based on the arrangement of our sails, and the position of our flag, was agreed on to indicate to our companion the position of the enemy. When cruising in company our submarine usually kept a cable on our quarter showing about six inches of periscope. It was most extraordinarily difficult to keep this in sight. It was one man's sole duty to watch it, yet quite half of the time it could not be seen, in spite of the fact that we knew exactly where to look for it. In calm water it could be made out easily, but if there were the least sea it was most

difficult to spot. Another difficulty was the question of speed. Lieut. J——, R.N., who was in command of the submarine, wished to cruise at from $1\frac{1}{2}$ to 2 knots, and no more, to avoid running his accumulators down. Perhaps it will be well to explain that when submerged submarines do not use their petrol motors on account of the fumes they give off. These are only used on the surface. When submerged, submarines run on electric motors, the electricity, or "juice" as it is usually called, being stored in accumulators. When following us he had to keep submerged during the hours of daylight, about 16 out of the 24, and if he had travelled faster than 2 knots he would have used up all the electricity, and have had no reserve in case he had to attack towards the end of the day. At dark he always came to the surface and cruised around, charging up his accumulators by means of the surface petrol motor. Keeping our speed down to his limit was rather a problem in a brisk breeze, and at times we were obliged to go astern on our motor to reduce the pace.

The first night out afforded a little mild sensation, not to us, as we did not know anything about it until the next day, but to our companion, who while cruising around in the dark came upon an enemy submarine on the surface watching the ship. The two sighted each other at the same moment, and both did a crash dive. There was no sequel. They lost each other.

Next day when off Smith's Knoll our submarine came to the surface at midday, owing to trouble with its planes. As soon as they came up J—— semaphored us to say what was the matter, and then occupied himself with the plane. He did not notice two "P" boats away on the horizon, but they noticed him, swung round, and came racing up at top speed.

A submarine alongside a coaster! Dirty work! “ P ” boats to the rescue! Meanwhile the submarine people, engrossed with the task in hand, did not see the challenges flashed at them, and were quite unconscious of the approaching danger. We could of course see what was happening, and shouted and made all the noise possible to attract their attention, but without effect. We also tried to signal the “ P ” boats, but they had a job on hand and paid no attention. Nearer and nearer they came and then, no reply having been made to the challenge, the leading ship opened fire. Luckily the shell went over. At the sound of the passing shell J—— looked up and gave an order over his shoulder, and then went on with his work. A seaman came up, carefully balanced himself on the conning tower rails, shook out a White Ensign which he had under his arm, and waved it at the “ P ” boat. The incident had closed. J—— soon afterwards came alongside to say that he must return to harbour. He made no allusion whatever to having been fired at. His planes were what occupied his mind, and he did not seem to think the other affair worth referring to. The C.O. expressed his regret at the incident.

“ Oh, that,” J—— replied. “ Yes, rotten bad form.”

These submarine officers were the coolest men it is possible to imagine. Nothing, absolutely nothing, ever seemed to ruffle them.

We also returned to land a man whose nerves had given way. He had been blown up right at the start of the war in the drifter “ Lindsell.” H.M.S. “ Speedy ” was on the spot, and lowered a boat to pick up survivors. As it was returning the “ Speedy ” herself was blown up. After our last scrap was over,

it was reported to me that he was bad. I went to see him, and he said that he was dizzy, and that everything seemed to be turning round. The medicine chest only contained castor oil, black draught, and morphia pills, and I was very doubtful as to which would do him the most good, or perhaps it should be, the least harm, and decided in favour of castor oil. I gave him a big dose of this and said confidently that in ten minutes he would be all right, and strangely enough in ten minutes he was all right, but the cure did not last.

A submarine to accompany us was not available until the 7th May, '17, and in the meantime we sailed up and down off the coast as before. This keeping to one area was against our wishes. We had so far seen four submarines and had scraps with three of them, all in the same neighbourhood, while no one knows how many may have seen us, and we feared that we were getting too well known. We did not know then that we had actually been photographed. Accordingly the C.O. asked permission to go to the Channel, or to the West Coast, where we were not known, and might hope to do some good, but permission was refused. Moreover, our orders were to keep to areas outside the traffic lanes, where coasters never went. That alone was enough to give us away. Luckily for us the submarine commanders seemed to have taken the view that as long as they knew who we were we did no harm, while if they sank us the ship would be replaced by another one, which they would not know, and which might sink some of them. Instead of saying "Hallo, here is a 'Q' ship. Let us sink her," they seemed to have said: "Hallo, here is a 'Q' ship. Well, we know all about her, and so she cannot do any harm. Leave her alone."

On the 7th May, J----- turned up again with his submarine, and we went off together. On the third day out while submerged he ran into our ship, and bent the periscope, and had to leave us once more.

A few days later another submarine arrived with Lieut. P-----, R.N., in charge. On the first night out when we were off Cromer going north a submarine loomed up ahead. Now as far as we knew our submarine was astern, at least it was when last seen. What then was this other one? It had raised bows and looked like a Fritz. The guns were manned. It came by quite close, and then turned and came alongside, and hailed us to ask for the bearing and distance of the Haisboro' Lightship. Our men were itching to fire, but the voice had been without question English, and other English voices could be heard talking in the conning tower. After a question or two, the C.O. was satisfied that all was in order, and gave the information demanded, warning them at the same time that there was another British submarine astern. Luckily the two did not meet.

A day or two later P-----'s planes also gave out, and he had to go in. After that we had to work alone, no submarine being available. Up and down the coast we sailed, but never saw as much as a periscope, and the C.O. became convinced that if we were to do any good we must have another ship. This was represented to the authorities on shore, and finally agreed to, but no steamer could be found and our hopes were dashed to the ground. The C.O. did not want another sailing ship. He was tired of sailing ships, which is not surprising, as he was accustomed to destroyers. I well remember that on one occasion we particularly wanted to get to a certain position at a certain time to meet

our submarine. The wind fell light and came ahead, and it was plain that we could not possibly be at the rendezvous in time. The C.O. came below and flung his cap on the table.

"All I can say," he said very seriously, "is that my admiration for Nelson, Collingwood, Howe, and the other great sailing captains is going up by leaps and bounds."

No steamer or, for the matter of that, no sailing ship being available we were told that we must be content with the one we had, and we went on sailing up and down the east coast, between the parallels of 52° and $54^{\circ}30'$ N. latitude. No submarines, however, appeared to stimulate our drooping spirits, and the C.O. became desperate. Time was going on, and we were doing no good, and he felt that a supreme effort must be made to pull us out of the rut we were in. He asked for, and obtained, permission to go off and try and find a suitable steamer himself, and had the great luck to find a small steamer which he thought would do right off. He brought back particulars, and his choice was approved. The owners were told that the Admiralty had need of the ship, and that she was to be at Lowestoft by a certain date. She was the last of their little fleet. All their other steamers had been sunk, or taken over by the Admiralty. One of their ships under Commander Day, R.N.R., had a terrible fight with the German raider "Leopard." H.M.S. "Achilles," cruiser, came up while the fight was on and administered the *coup de grâce*. While these arrangements were proceeding, we continued our excursions into the North Sea, with no better luck than before, but we were no longer despondent as we knew that the other ship would be along soon. As a matter of fact the life itself was

very pleasant in fine weather, and it was only the conviction that we should never have another " show " in that ship as long as we were kept on the East Coast that was depressing. The routine we followed was this. The ship's company, except the cook and the marine who were day men, *i.e.*, worked all day and had all night in, and the W/T operator who went on watch at his instruments at fixed hours, were divided into three watches each under a petty officer or a leading seaman. The men off watch could sleep, read, write, mend clothes, or do what they liked, but they were not allowed to appear on deck. They might sit on deck below the bulwarks, but were not allowed to stand up or show themselves. The C.O. and I worked watch and watch, and one of us was always about, not necessarily on deck, as that might have made too many showing, but dressed and awake and within call.

CHAPTER V

" Q " SHIP " TAYNE "

ON the 1st July, '17, our new ship—which I will call the " Tayne "—came into harbour. She was of 500 tons and in peace time ran between Dundee and Newcastle with goods and passengers. The ship herself was rather disreputable looking, and not very clean, but her engines were in good order, and gave her a speed of 10 knots. There were two well decks, one forward of the engine room, and the other one aft. The former would do admirably for carrying concealed guns and torpedo tubes, and a gun would also go into the well deck aft. In addition there was a small smoking room on the poop, which would hold yet another gun. Altogether she was just the type of vessel we wanted as she would carry a good concealed armament, and had also good accommodation for the crew which we should require. The chief fault was her size, 500 tons. It was rather small for the purpose. Submarine commanders might think that she was hardly worth attacking. The number of torpedoes they could carry was limited, and they might decide to reserve them for a larger quarry. It was becoming unlikely that they would attack by gunfire, as that mode of attack was less popular since the advent of the " Q " ship. Compelling the submarine to give up the gun in favour of the torpedo was perhaps the greatest service the " Q " ship ren-

dered. It must have been the means of saving innumerable ships.

We were delighted with her. Here at last was an instrument with which we might do some good. The sobering reflection came that we, or at least I, had felt the same regarding the " Result," perhaps even more so, and yet the return had been less than meagre.

As soon as the old crew had left the " Tayne " our men from the " Result " went on board, and started to clean her up. All the crew were transferred from the old to the new ship, except Macalpine, who remained in charge of the engine. The " Result " was taken over by another Base for service in the Channel. She was soon found to be unsuitable for a " Q " ship on account of want of reserve buoyancy and limited field of fire, and was handed back to her owners after having been offered to other Bases, and rejected by them all.

By the 10th August, '17, the alterations were complete, and we left harbour.

In the forward well deck the two 18 cwt. 12 pdrs., and the two fixed 14" torpedo tubes, taken from the " Result," were installed. They were completely hidden, and were brought into action by opening doors in the bulwarks. There was also an apparatus for making smoke to screen the ship if necessary. In the well deck aft, was a high angle 6 pdr. for use against aircraft, and another smoke producing apparatus. The smoking room on the poop, which had been a steel erection, had been cut off level with the deck, and another smoking room put in its place. This latter was of wood, and was so arranged that the sides could be made to fold up on themselves and fall down. The roof was strapped to the cargo derrick, and when the sides were down remained

suspended in the air. Inside this collapsible house was a 4" gun. It was a good weapon with a range of over 10,000 yds., and it fired a shell weighing about 35 lbs. The field of fire was also good, and it could be trained to fire from four points on the bow right round aft to four points on the other bow, or 270° out of a total of 360° .

As the complement, including the engine room staff, was only 34 men, it was rather a problem to man the guns and torpedo tubes and also arrange a "panic party" and then have enough hands left over to run the ship. Indeed it could not be done, and separate lists of Action Stations were drawn up to meet the cases of being engaged with one submarine, when only two guns and the torpedo tubes need be manned, and a "panic party" would be available; of being engaged with aircraft; and of being involved in a general mix-up when all guns would be manned, but there would be no "panic party."

But we were very short of men, except when in action with aircraft, and only eight were available for the "panic party." As the submarine would expect to see at least twelve men the balance was made up of dummies dressed in shirts, waistcoats, and caps with sweat rags round their necks. These were kept in the boats, and were set up by the "panic party" as they climbed in. Ward, who was the artist on board, painted in hair and features and produced a distinctly Mongolian effect.

The deckhands and the stokers lived in the fo'c'sle, and the active service ratings lived in what had been the steerage which was now fitted with bunks. The petty officer and the engineers lived in cabins opening into alleyways leading from the well deck forward to the well deck aft. The saloon was turned into a



Photo by H. Jenkins, Lowestoft
TORPEDO WITHDRAWN FROM ITS TUBE MAXIM AND LEWIS GUNS



Photo by H. Jenkins, Lowestoft
THE 4-IN. GUN READY FOR ACTION. THE SIDES OF THE GUNHOUSE HAVE BEEN COLLAPSED, WHILE THE ROOF REMAINS SUSPENDED. WHEN NOT IN ACTION THE BARREL OF THE GUN RESTED IN THE HOLLOW IN THE CENTRE OF THE SKYLIGHT

ward room where we had meals, and the new watch-keeping officer Lieut. L. S.—, R.N.V.R., who volunteered from M.L.'s, and the Engineer Officer, Engineer Sub.-Lieut. D. C.—, R.N.R., who came to us from the 10th Cruiser Squadron, and I, occupied cabins surrounding it. The C.O.'s cabin was under the wheel-house on the upper deck. The C.O. had decided to have two commissioned officers for watch-keepers instead of continuing the old system of having the petty officer and leading seamen in charge of the deck.

There were two lifeboats carried in davits on the boat deck.

Coal was rather a problem, as the ship would only carry enough for a week's steaming. To get over this, part of the forward hold was bulkheaded off and turned into a reserve bunker. A magazine for the 12 pdrs. was arranged over this bunker. The magazine for the 4" gun was under the ward room.

From the point of view of comfort the new ship was a great advance on the old one. The men were not so crowded and had more room for their clothes, while the cook had a bigger range and a better chance with the food. The C.O. and I were very fortunate in getting Lance-Corporal F—, R.M.L.I., to look after us and keep our cabins straight. He also saw to our meals aided by a steward, second class, who attended to S— and C—. F— was a very efficient person. His was not an enthusiastic nature, indeed he regarded the world with a gloomy eye, but he knew his job inside out and was a first class caterer. A nice mature "Joey" wants a lot of beating as a servant.

On leaving Lowestoft we made for the Wash, a large inlet between Norfolk and Lincolnshire, to drill, run the torpedoes, and have some gunnery

practice. The C.O. took a great deal of trouble to have everything right, and used to go away with one hand in a boat while I took the ship away, and then came steaming past at a distance of half a mile. When he was ready he waved a handkerchief, which was supposed to be the equivalent to being attacked by a submarine, and carefully watched what took place on board to see if anything was done of a suspicious nature. At the first attempts he noticed several things which were unlikely to occur in a *bona fide* tramp steamer, and he kept us at it until every man was perfect in his part. The guns were practised at first singly at a target while the ship was steaming, and then together in battle practice. Here again he took the greatest pains in coaching the spotting officers, S—— and myself. He always gave the initial range and deflection, and purposely gave them wrongly, to practise us in getting quickly on to the target. Moreover, a hand was sent to note the corrections we gave the sight-setter, while the C.O. noted the fall of the shot. A comparison of the two afterwards furnished some valuable information.

Having settled down a bit and done our drills, we went north for a final shake down, and to try the ship at sea. She proved to be a fairly good seaboat though given to rolling heavily. This feature was very inconvenient owing to her low freeboard. From the deck to the top of the bulwarks was about ten feet, but the deck itself aft was less than three feet from the waterline, and when there was any sea at all, and she was rolling, there was always water swirling about. In bad weather there were usually miniature waves from two to three feet high raging to and fro. The alleyways opening into the well



Photo by H. Jenkins, Lowestoft
 LOOKING DOWN INTO THE FOR'D WELL DECK



Photo by H. Jenkins, Lowestoft
 ONE OF THE 18 CWT. 12 POUNDER GUNS IN THE FOR'D WELL DECK

decks were always under water, and every expedient we could think of was tried to cure this. Stout boards 3 ft. high were fitted and caulked, but the water hopped over these, and then could not get out. They were then abolished, but matters were found to be worse, and they were put back but made higher by a top movable piece.

We went as far north as the Bell Rock, off Dundee, in the hope of attracting an enemy submarine, should one be hanging about waiting for the light cruisers to come in or go out, but nothing showed up, and we then made for the Firth of Forth. While the ship was lying there the S.N.O. of one of the Bases in the Forth came out to inspect us. During his walk round the ship he arrived at the rails on the upper deck forward. Across the well deck and leaning gracefully on the rails on the aft side of the fo'c'sle head was one of the stokers, a big formidable looking man, most efficient and reliable. The two looked at each other without any signs of approval, indeed they seemed to scowl at each other.

"Who is that man? What is his rating?" demanded the S.N.O.

"He is a trimmer R.N.R. (T.), sir."

"Ah. Just so." The S.N.O. was satisfied. Had the man been an active service rating his attitude of easy unconcern might have got him into trouble, but it was no use getting annoyed because a trimmer schooled in a trawler did not know the deference due to the wearer of an Admiral's uniform. The stoker, it need hardly be said, did not mean the slightest disrespect. He was an excellent fellow, and was simply interested in the Admiral. Probably he thought the uniform very becoming. But in the

Service proper men are not encouraged to lounge about when Senior Officers are present.

We left our anchorage at 5 p.m. next evening, and started steaming down the Forth. Our movements seemed to occasion the patrols some anxiety, and a T.B.—usually known as an “oily wad”—came up to ask why we were steaming alone. Later on two armed yachts took the extreme course of firing at us. Luckily their shots fell 1,000 yds. short. They forced us to return with them to May Island, where we had to wait for two hours until instructions releasing us were received.

The night was very dark and soon after midnight the look out reported a submarine on the port bow quite close. I rushed through the wheelhouse, bumping into the portly quartermaster on the way, but could not see anything. I, however, caught sight of two large dark shapes just ahead on the starboard bow, and rushed back again. The dark lumps appeared to be two vessels crossing our bow, and I had the helm put hardaport. We just missed the last one, which had turned on a very dim port light for our benefit, and I then had the C.O. called. He decided that the submarine was probably one of ours going out with two of our warships, and we went on. That sort of thing often happened, and the unfortunate C.O. was liable to be called out at any time of the day or night. In spite of that he practically always took the morning watch from 4 a.m. to 8 a.m., while S—— and I worked watch and watch through the rest of the day and night. The fact that the C.O. stood this watch made an immense difference to us, as it meant that once in the 24 hours we each had an 8 hour stand off. The men also worked watch and watch—except the four quartermasters,



Photo by H. Jenkins, Lowestoft
 THE GUNHOUSE. IN PEACE TIME IT HAD BEEN A SMOKING-ROOM



Photo by H. Jenkins, Lowestoft
 THE GUNHOUSE PARTLY DOWN

who took two hours at the wheel each, and then had six hours off—but they were rather better off than the officers as each man did only one hour on look out in each watch, and the rest of the time at night had one hour as messenger and for the remaining two simply stood by in case he was wanted. During the hours of daylight, but not before 6 a.m. or after 5 p.m., the men not on look out duty worked about the decks when on watch.

Having completed our trial trip we made for the Channel. We had feared that we might have been kept steaming up and down the East Coast, but the C.O. managed to persuade the authorities to allow us to go to the westward. This arrangement gave us a much better chance of doing some good, though we had rather a disappointment on the first trip through sighting an enemy submarine steaming east up the Channel on the surface, which paid not the slightest attention to the ship. It was blowing very hard and we were labouring along in a big sea towards the Start when this happened, and we tried to comfort ourselves at being ignored in that way by the thought that there was really too much sea for a submarine to attack in. Of course we could not attack it. That was not our rôle. We were a peaceful coasting tramp.

Two nights later when off the French coast some "liveliness" took place, mixed up with a certain amount of hate. It was a beautiful, calm, moonlight night. Nothing of special interest had occurred in my watch, the first, from 8 p.m. to midnight, but the middle watch was full of happenings. It began when S—— sighted a dark lump low in the water, and made over that way, at the same time sending for the C.O. It appeared to be a craft of some kind,

and it looked very much like a submarine. The C.O. decided to ram it, but, when quite close to it, the black object suddenly switched on its navigation lights and fled, uttering loud shrieks on its siren. It was a French torpedo boat. Peace settled down once more on the scene, but not for long. Shortly afterwards another black object was sighted for a moment and then lost sight of again at the time when a large steamer was overtaking us. The steamer went by and had got about three-quarters of a mile ahead when a violent explosion took place at its stern. It had been torpedoed. A column of smoke and water and bits of the ship shot into the air. In two minutes the ship had sunk. As soon as the explosion had occurred we steamed at full speed in the direction in which the black object was supposed to have been seen, but found nothing, and after hunting round for a bit made for the spot where the ship had sunk. There we found two boats in the water in the midst of a mass of wreckage of all sorts. They came alongside as soon as we stopped and the crews scrambled on board, one lot at the waist, and the other up a rope ladder on to the upper deck. The first man on the ladder must have thought that the nightmare was still on as, owing to a few rungs having been left hanging inboard, it descended with him as fast as he mounted, and he made no upward progress until it had straightened out, and then he and the rest streamed on board.

As soon as the last man was out of the boats they were cast off. It seemed a pity to let two perfectly good lifeboats go, but the C.O. took the view, no doubt a sound one, that it was not worth while risking the ship by remaining stopped a second longer than was necessary for the sake of two boats. The

submarine was still in the neighbourhood, though quite invisible, and it might elect to indulge in a bit more frightfulness by torpedoing us while we were stopped. So it was, "All on board?" "All on board, sir." "Cast off," and on we went, leaving the two lifeboats floating abandoned in a mass of wreckage, all that was left of a fine, new, 4000 ton vessel.

The rescued deckhands and stokers, the latter mostly Arabs, went forward where they were looked after by our men and supplied with rum and tea and dry clothes, while the others were taken aft, and their wants attended to. Two men were missing, the mate who had been turned in aft and who had probably been killed by the explosion, and a stoker. No one knew what had happened to the latter. He had been seen on deck after the ship was hit, but he was not among those rescued, and he must have been drowned. The skipper was quite broken up, crushed for the time being, by the sudden loss of his ship and two hands. Though a strict teetotaller he was induced to drink a little whisky, and that did him a power of good, and brought things back into their proper perspective. Early next morning we were in Portsmouth, where the survivors were landed, some of them strangely garbed in borrowed garments, but none of them any the worse for their experience. As they went off the skipper came to me and asked where the "old man" was, as he wanted to say good-bye. Our youthful "old man" was found and the adieux were said. This gave me later the opportunity of getting some of my own back. So far I had not found a fitting retort to his description of me as "hale and hearty." It was, perhaps, a poor weapon but it served.

Next time we were in Lowestoft some of the sand

ballast was taken out, and the forward hold was filled with empty fish barrels. The hatches were then put on, covered with a tarpaulin, and the whole was secured by a wire net over the lot lashed to ringbolts in the coamings. It was necessary to have the hatches well secured because if the ship were sinking the upward pressure of the barrels, which of course would be very great, would force the hatches off. Some barrels were also stowed in No 2 hold aft, but it was not completely filled, as room had to be left for stores. Altogether 1200 barrels were put in, and the ship's value as a "Q" ship was much increased. On the other hand our depth charges were taken away, which filled us with despair. Depth charges would not stand gunfire, *i.e.* were liable to explode if struck by a shell, and the order was issued that no "Q" ship was to carry them unless she could steam at 12 knots or more. It was probably considered that "Q" ships were peculiarly liable to gunfire and that it would be better that the slow ones should not be fitted with these charges, since their presence would be a danger to those on board, while the slow speed would most likely prevent them from ever being used with effect. As it happened, our next but one trip west gave us three separate occasions when a depth charge would very likely have accounted for a submarine. What our feelings were then may perhaps be imagined, but I could not describe them in seemly language.

Towards the end of September, '17, we were in Queenstown, having obtained permission to enter for shelter from a S. W. gale. The C.O. went on shore to report to the S.N.O. and was very cordially welcomed and told never to hesitate to ask permission to enter if circumstances warranted, as the S.N.O.

did not consider that outside " Q " ships were poaching by coming to his district. " And now tell me what you propose doing." The C.O. thus encouraged started off to describe his plans with a certain amount of swing and go. The S.N.O. leaned back in his chair and regarded him impassively without a word. On went the C.O. still full of his subject. The S.N.O. continued to look at him silently. Presently the C.O. became aware of a certain amount of constraint in the air, and his glowing tale began to fall off and finally, the S.N.O. still silently watching him, petered out to a lame conclusion. Still silence. The C.O. began to wish that he had not come. Then at last the S.N.O. spoke. " I sometimes think that you gentlemen in " Q " ships do not quite realize that you are up against the best brains in the German Navy. Pray give the commanders of German submarines credit for possessing as much common sense as you have yourself"—a pause—" or even a little more." The C.O. returned from the interview in a state of collapse. When he got back on board he found me mopping my brow. He had gone to see about some stores after his interview, and in the meantime the S.N.O. had ordered his barge and come on board to inspect the ship. I received him at the side and he acknowledged my salute and then proceeded to examine the ship without taking any further notice of me. I followed him around ready to answer questions, but none were asked. He then demanded a chart of the Atlantic, made a pencil mark on it, and said " Give this to your Captain. Good morning to you " and had gone. He left the conviction that he had missed nothing, absolutely nothing, and I felt that I had been in contact with a real live wire. I was just recovering from the visit when the C.O.

returned. We compared notes, but could not decide which of us had suffered the most.

For a time after this we wandered about in different directions, basing our movements on the reports which were constantly coming in by W/T of the presence of submarines in various localities, but without inducing any of them to take an interest in the ship. If a submarine were reported off the coast anywhere near, we would try and arrange to pass that point in daylight so as to give Fritz a chance of attacking if he felt so disposed. It would not be much use passing at night, as the "U" boat would very likely be away out to sea charging up its accumulators.

On the 26th September, '17, while we were coaling at Pembroke news came in that an "oiler" had been torpedoed off the Irish Coast. It was also reported that "PQ" 61 had rammed and sunk the submarine.

It was thought on shore that another "U" boat was in the neighbourhood, and we were sent out to find the "oiler" and render any assistance required. We were also to take with us the tug "Francis Batey" to help tow the damaged ship to port. It was a very unpleasant afternoon, raining, and blowing hard from the south-west. The driving mist reduced visibility to about 200 yds., and the scene as we cleared St Ann's Head was very bleak and depressing. An offset, however, was the fact that we had a definite object in view, instead of wandering aimlessly about trailing the tails of our coat for a submarine to step on, and we plunged on as fast as possible with the little tug battling gamely along astern. She was burying her bows in the seas, and flinging the water about in sheets, but steaming at a good speed all the same. Some hours later a group of ships was

sighted ahead, and on nearing them we made out the " oiler," rather down by the stern, in tow of a " PQ " ship. Two other " Q " ships acted as escort. The tug soon had a line on board and started towing, while we ranged up alongside the towing " PQ " and asked if there was anything we could do to help. The " PQ " replied asking us to get a line on the " oiler's " port bow and tow, but before we were fast she hoisted a signal " Submarine in sight on the starboard bow." We dropped everything and wallowed round and passing the " oiler's " stern came up on her starboard bow. The other two " Q " ships moved in the same direction and the three of us zig-zagged to and fro keeping the sharpest look out, while the other " PQ " and tug dragged the " oiler " ahead as fast as they could. She was a big ship to tow, and the pace was not very hot. After a time not having seen anything we went alongside once more leaving the other two zig-zagging about. Again as we were passing the line came the signal " Submarine in sight on the starboard bow " and again we let go everything and got round on to the bow, and this time remained there until 9 p.m. when we were nearing St. Ann's Head. I never heard whether there really was a " U " boat or whether the " PQ " was merely seeing visions. If there was one there, it showed the most extraordinary want of enterprise.

Later on when in port we heard that " PQ " 61 came across the " oiler " after the latter had been torpedoed, and on learning the facts steamed round in hopes of finding the " U " boat. The morning was thick and " PQ " 61 had the luck suddenly to come on the submarine resting on the surface. Before it could do anything to escape " PQ " 61 had rammed it and cut it in half. Two men in the conning

tower, the commander and a seaman, were flung into the water, but one only was picked up, the commander. The other one had sunk by the time the ship had turned, and got back to the spot.

Perhaps it would be well to explain that a "PQ" ship was a "P" boat turned into a "Q" ship by adding a coaster's bridge and deckhouses, but they were not very convincing in appearance, as there were no winches for working cargo, and no house aft. They were rather too clean cut everywhere, but they were fast, 22 knots, and I believe did very good service from first to last. It must have been highly disconcerting to a submarine commander to see an apparent tramp suddenly increase speed from 8 to 22 knots.

After leaving the "oiler" we made for the Irish coast. Nothing much happened on the way except that S—— made an unprovoked attack on a drifter which looked very much like a submarine in the dark. Luckily the mistake was found out before we rammed it. The C.O. was called out to superintend the battle, but finding that there was not one on retired to his bunk again in disgust.

Next day we made rather a *faux pas*. At 11 a.m. what looked like a ship's boat was sighted 2 or 3 miles off. On our approaching it, however, it was seen to be the conning tower of a submarine just awash. We hastily turned away, and sent orders to the engine room to make as much smoke as possible to give the impression that we were steaming off at top speed. Actually, however, speed was reduced. The submarine began to take an interest in us and followed. Just at that moment, as luck would have it, an American T.B.D. showed up on the horizon.

coming our way. It did not know that the submarine was there of course, but just happened to be passing. The " U " boat dived and lay low. The T.B.D. came rushing past, and had very soon disappeared over the other edge of the horizon, but Fritz seemed to have had a shock and did not show up again. We could not, of course, hang about indefinitely as we were supposed to be running away, and so had to go on. Soon afterwards a large steamer of about 5000 tons appeared coming towards us. This was the very sort of ship that Fritz was looking for, a slow, unescorted tramp of comfortable tonnage, and the C.O. decided to escort her along the coast. The lack of depth charges handicapped us very severely as far as attacking was concerned, but he hoped that if the big ship were torpedoed we might manage to get a blow in somehow. The " best brains in the German Navy " did some foolish things at times, and he hoped for the best. We accordingly closed the approaching steamer and signalled: " There is an enemy submarine ten miles south-east of you. I will escort you to the Tuskar." The reply shook us to the core. " Thank you. There is no need. I can look after myself. I am H.M.S. ' Starmount.' " It was another " Q " ship! We retired " Hurt," and went on our way. Next day we were off the Shannon River, and went a few miles up it before turning and going out again. When we were well inside S—— " the navigating gunner " as he called himself, came on to the bridge with a pleased smile on his face and a paper in his hand. " Where are we? I have just remembered that some mines have been reported off the entrance. Perhaps I should have mentioned it before. However better late than never." On plotting the danger area on the chart it was seen that by

good fortune we had come in on a safe bearing, but it was pure luck.

In the early part of October, '17, we were back in Lowestoft, and on the 15th left for gunnery practice and to run the torpedoes; one of which we lost. When fired it would not run. The boat laboured up to it and made fast. No sooner was this done than off it went at full speed. Those in the boat had to let go and row after it. Having got it on board and parted and examined it, we tried it again in the afternoon. Again it would not run at first, but presently started off, slewed round and came for the ship, missing it by 6 ft. Of course it only had a practice head on and would not have done any harm if it had hit. It then streaked away up the path of the sun's rays, and was lost sight of altogether. Weeks later it was found by some fishermen, and returned. In the meantime we had to go with only one torpedo. Our orders were to go up the East Coast to Granton, to see if we could pick up anything on the way.

We passed Flamborough Head about 4 p.m. one afternoon. It was a cold misty day, and a stiff N.E. wind was blowing. The afternoon watch had just been relieved, and I was down below drinking a cup of tea, and thoroughly enjoying it too, though it was only ship's tea, for it had been bitterly cold on the bridge, and it was a pleasure merely to be below and out of the wind, when a messenger arrived to say that the Captain wanted me to see both boats manned and ready for lowering. Something serious must have happened or there would not be any question of lowering boats considering the sea that was running. After giving the necessary orders I went on to the bridge to see what was in the wind. In reply to my question the C.O. pointed to where,

a mile ahead, a 2000 ton steamer was on her beam-ends and sinking rapidly. It was only a matter of seconds before she would go down. The " Tayne " was wallowing along at her best speed of 10 knots, rolling and pitching in the heavy sea, but while we were still a long way from the steamer she sank. She had been one of a number of ships forming a convoy escorted by a " P " boat, which then dashed up to the spot but went on to search for the submarine which had dealt the blow without waiting to pick up survivors. The other ships in the convoy had lost all formation and were pointing in all directions ; some were stopped ; some were steaming out to sea ; others were heading for the land. Near the spot where the ship had sunk were two boats in the water, one with four men in it, but the other was capsized and floating upside down with a few men clinging to the keel. As we approached we could see others hanging on to floating bits of wreckage. The convoy had in the meantime pulled itself together and gone on, except one ship which remained long enough to pick up the men in the two boats, and, as soon as this was done, hurried off after the others, leaving us to try and save the men clinging to the wreckage.

The C.O. told me to lower a boat, and see what could be done. Lowering boats at sea is not as simple as one might think, especially in rough weather. Most ships carry their boats fairly high up to keep them out of the way of the sea should the ship be rolling heavily. The higher up they are the more difficult it is to lower them safely, as it takes longer for them to reach the water, and they swing about more owing to the greater length of the falls or ropes used for hoisting and lowering them. Our boats were carried 21 ft. up. This was no great height,

but, on the other hand, the ship was small and given to rolling in an exaggerated way. Moreover, to add to our difficulties she was fitted with a rubbing strake on the water line projecting 18 ins. This alone made lowering boats in a seaway extremely awkward, as if when in the water the boat's gunwale got under it while it was rolling downward there would be a smash up. Speed was what was wanted, speed in lowering, unhooking the blocks, and in getting clear of the ship, but speed was what we did not succeed in getting on this occasion. It is usual to fit ships' boats' davits with lifelines secured to the davits, so that when hoisting or lowering in a seaway these lifelines can be crossed and the forward one taken aft in the boat and the aft one taken forward, so as to check the fore and aft surge. Without something of the sort the nearer the boat gets to the water the more she flies to and fro. The "Tayne's" davits were not so fitted when we took her over, and we left things exactly as we found them so that a submarine examining us should not see anything new or unusual about the upper works. The absence of these lines resulted in the boat surging violently backwards and forwards as soon as the grips were cast off and lowering began. In addition to surging she swung away from the ship on one roll, and crashed into the side on the return roll, and altogether seemed to be quite out of hand. This rather disconcerted the men at the falls and they slowed up until I shouted to them to lower away, lower away, and so swinging about more and more violently the lower we got we finally plunged into the sea, unhooked, and pushed clear. The men in the water said afterwards that they watched the boat's antics with sinking hearts. Their one chance of life lay in that boat, and it seemed to

them that it was in a fair way to become smashed up. They were proportionately delighted therefore when they saw it finally splash into the sea, and get away from the ship. An eyebolt in the ship's side had knocked a hole in the boat but as she was fitted with air tanks this did not matter very much, and she rode the seas like a bird.

On glancing at the crew I was rather surprised to see that it was a scratch crew and not the ordinary seaboat's crew. There were two deckhands, a quartermaster, and the wireless operator, all excellent men and good boatmen. It appeared that the order had been passed as "Away lifeboat" instead as "Away seaboat." The former is practically a call for volunteers and is answered by those nearest to the boat, while the latter is an order addressed to the men told off to man the seaboat.

However, no harm was done and off we went, the men digging out for all they were worth and getting quite a respectable speed out of the heavy old boat. When in the troughs of the sea we could see nothing, but on the crests of the waves heads were occasionally visible a short distance away. The first two we reached were sitting on the remains of a small boat and were immersed up to their waists. The bottom of the boat had gone, but the upper planks and the thwarts still held together. One of them was the captain, and the other the donkeyman, a Spaniard. They were pulled into the boat without any trouble. The Spaniard only had a shirt and pair of trousers, and we had to lend him one of our coats to keep off the bitter wind.

The next two we came across were clinging to an air tank which had been blown out of a lifeboat. Their position was very precarious, and great care

had to be exercised in getting alongside, as striking them or the tank would have probably meant losing them. First one and then the other were grappled and dragged on board. Both were injured internally and the rough handling they received caused them agony, but it could not be helped. Both collapsed into the bottom of the boat. They were pulled as gently as possible from under the seats and laid aft.

We searched for a while longer among the wreckage, but could not find anyone else, and returned to the ship.

Hoisting the boat was even more awkward than lowering had been, and there seemed to be quite a good chance of our getting under the ship's rubbing strake, but by bearing out with the stretchers, and passing up an oar for one of the hands on deck to hold vertically up and down the ship's side this was avoided, and the fall blocks were hooked on, and the boat hoisted out of the water. As before, we crashed and surged about. The injured men were calling out in their pain whenever we bumped. Ultimately the boat was hoisted up and secured, and the wounded men carried out and taken below. One was found to have some damage to his ribs, but we could not discover what was the matter with the other one.

Next morning they were transferred to M.L. 136 which had been sent out to take them in. One of them died in hospital the same day.

The Captain of the torpedoed ship made a money present before leaving to the men who had manned our boat. They handed this over to the C.O. to be forwarded to the Shipwrecked Mariners' Society. As some of them had no money at all with them, this was a fine act on their part, and very typical of the

seaman, who is usually an open-hearted, broad gauge man. Some of our lads devoted the whole of their watch below to attending to the injured men, and preparing and applying hot fomentations.

The Captain owed his life to a kapok waistcoat he was wearing. When the ship sank a stay caught him across his back and forced him under. He wriggled clear but got under the mast, and was taken down once more. He was then quite exhausted and incapable of further effort, but the buoyant waistcoat brought him to the surface near the damaged boat, and he managed to climb into it.

Having reached Granton without further incident we went in and coaled. While we were lying alongside the quay a motor-boat brought off a present of two boxes of fish from some one at the Base. This was very kind of the donor, whoever he might be, and we sent back a message of thanks. The boat, however, soon returned and asked for the boxes back. The fish was emptied on deck and the boxes handed back, but the officer in the boat said that a mistake had been made in delivering the fish to our ship and he wanted the contents back as well as the boxes. I set two hands to replace the fish, and the motor-boat then went off. As soon as it had gone the hands lifted up a raft standing on deck, and, behold, under it were about 40 fish which they had cunningly slid there while refilling the boxes. I had not seen the manœuvre, nor had the officer in the boat. And so part of the present at any rate got into good hands.

Two days later we left for Lowestoft. The barometer stood at 29.25 when we started, but in 14 hours it had fallen $1\frac{1}{4}$ ins. to 28 and the wind was blowing very hard from the S.S.W. Just after dark there

was a lull and then the wind came away from the N.W. and blew with redoubled violence. Luckily it was off shore so that the sea was not too bad, but the pressure of the wind in the squalls was extraordinary. It was absolutely impossible to see anything ahead. All was murky blackness. I had gone on watch at midnight with some biscuits in my pocket and a Thermos flask of hot coffee, but had no time to drink the latter. I could not relax my attention, even for the few seconds required to unscrew the stopper and pour out the contents, for fear of running into something. No ship could possibly have been seen until we were right on top of it, and a second then might make all the difference. I always found night watches on dark nights when the weather was bad far more of a strain than when it was fine. In rough weather it really became more or less a matter of luck whether one ran into another ship or not.

On the way down we ran into Bridlington Bay for a night, and left again before dawn so as to be off Flamborough Head at daylight. A number of ships had been torpedoed there during the week, and we hoped to attract the "U" boat. As we were weighing anchor one of the hands sighted what he thought was the conning tower of a submarine on the other side of the Smithic Shoal. The C.O. thought that the occasion justified the running of a certain amount of risk, and cut the edge of the sand very fine, so much so indeed that we grazed twice, without stopping. The conning tower had disappeared by the time we had got across, but we warned two patrols, and sent out a general W/T signal, and then, remembering that we were a peaceful trader, went off down the coast. At noon a big merchantman appeared ahead going north, and we

turned and kept close to him until he had passed the Head.

When we got back to our port the C.O. met an old friend, Lieut. F——, whom he had last seen at the Dardanelles and who was now fitting out some trawlers with the new " fish " hydrophone. It was claimed for it that the engines of a submarine could be heard 10 miles off, and that the instrument also gave the direction of the sound. It seemed a first rate affair, superior in every way to " Q " ships as it enabled one to become the aggressor, instead of leaving all initiative to the enemy. To locate and chase the " U " boat was a far better show than merely steaming about and hoping that it would kindly condescend to attack one by gunfire or torpedo, and both the C.O. and I asked to be transferred to these hydrophone trawlers. In reply we were told that we could not be spared, as the Admiralty, while quite realizing the present position of " Q " ships, intended to keep them on. As long as they were about the " U " boats had to be very careful whom and how they attacked, and in consequence many ships escaped. To give them up would enable Fritz to act more freely and boldly. Some time later an opportunity occurred and I applied again, but it was several months before the application bore fruit.

After scrubbing the hull and refitting, we left Lowestoft on the 5th November, '17. The plan was to go down the Channel on the French side to Ushant and then cross to Plymouth. From there we were to go to Milford Haven and Queenstown.

On the way across to Boulogne a W/T report came in advising hostile submarines a few miles to the eastward. A few minutes later a T.B.D. burst out of the mist ahead, followed by another one further

out. Then three transports and another T.B.D. came into view. The former were full of troops going on leave. Just then I caught sight of an ominous black rod sticking a couple of feet out of the water. "A periscope" I thought. "They mean having a shot at that last transport." I seized the handle of the engine room telegraph and swung it backwards and forwards a few times leaving it at "Full Speed." This was the signal arranged with the engineers for every available ounce of steam. The C.O. heard the agitated tinkling of the bell and was on the bridge in a flash. "What is it?" I could only point in reply. The C.O. soon picked it out and did another solo on the telegraph, while I steadied the ship right on the object. The ship seemed unusually slow, but we got there in time, and the bow wave washed the periscope aside. It was a dummy.

After that nothing of interest occurred on the run to Ushant, except that we steamed through a 20 mile minefield off Cherbourg without knowing anything about it—we had not been told that it was there—and very nearly ran down a French fishing boat one night just this side of Ushant. It seemed to rise out of the sea. One moment it was not in sight, and the next the sail swept past the side. We did not actually touch it, luckily for its crew, as we could not have saved them, but it was very close.

The weather when we were crossing from Ushant was extremely bad, and the ship rolled heavily the whole way. A certain amount of damage was done on deck. Meals became terrible scrambles. All the cooked food for the ward room had to be brought from the galley across the well deck, and as this was a mass of seething water it was almost an impossibility to get it across undamaged. When it had arrived

it could not be induced to remain on the table in spite of the fiddles. We sat holding down plates and dishes with our hands and elbows, and snatched a mouthful when we could. It was discovered that the best thing to do with a glass was to put it in the outside breast pocket of the tunic. "This is the dirtiest ship that ever I was in," said the marine gloomily. By the use of the word "dirty" he did not mean to imply that the ship was not clean, but that there was more water flying about than in any of his previous ships. My cabin was a special trial to him, as it was often under water to the extent of about an inch. How the water got in remained a mystery to the end, but water in the well deck meant water in my cabin.

On leaving Plymouth a W/T message came in addressed to all British and American warships and to all merchantmen that the French steamer "Guyane" was being chased by a submarine 20 miles from where we were. Tacked on to the message was one from the "Guyane" to the effect that the "U" boat had "*momentanément*" disappeared. At dawn next day we were on the spot and indulging in some complicated zig-zags after the manner of merchantmen, but an airship, two seaplanes, a trawler, and two American T.B.D.'s arrived soon afterwards and we left for more secluded areas. The "U" boat would never attack a small ship like ours with all that patrol activity, and it was no use remaining.

A few days later off the Welsh coast a periscope suddenly appeared from 200 to 300 yds. on the port bow. After a brief examination of us it dipped. The submarine commander had evidently heard the sound of our propeller on his hydrophone and had

bobbed up to see if we were worth torpedoing. As nothing happened he seemed to have decided that we were too small, but what a chance for a depth charge! Had we been provided with them we could have dropped one practically on the submarine, but we then had none. They had been taken from us. After steaming thousands and thousands of miles to have a splendid chance like that and then not to be able to take advantage of it! It is impossible for me to describe what we felt. I was so profoundly discouraged that I wished, I remember, that the "U" boat would torpedo us, and have done with it.

A couple of days later we were off Queenstown and about to enter when a W/T signal came in, addressed to us, that there was a hostile submarine 25 miles to the southward, and that we were to go and try to find it, but were to be back in time to enter the harbour at dark. Our speed would not allow us to do the distance in the time and we asked for permission to remain at sea during the night and return at dawn. On arriving in the vicinity of the position given a black object was sighted on the bow, and the C.O. after a careful examination through his glasses decided that it looked like a "U" boat. We went to action stations, but were once more disappointed as the "black object" resolved itself into a steamer. All night we steamed about, but saw nothing of the "U" boat, and returned to harbour in the morning. During my watches I had been imagining that I could see submarines in all directions every three or four minutes, and S—— had been doing the same he said. Neither of us in consequence found the time hanging. On the contrary it was rather too stimulating, though it all came to nothing.

Next day orders came for us to leave harbour at

once and proceed to the neighbourhood of the Smalls Lighthouse where a ship had been torpedoed that morning. When we were on the way down the harbour a signal was made ordering us back to our buoy, as the entrance was mined. By 4 p.m. a passage had been swept, at the price of the loss of one trawler-sweeper and all hands, and we were told to leave astern of four T.B.D.'s. There was a check at the gate, and the four T.B.D.'s, an armed yacht, a tug, two tramps, several trawlers and our ship drifted about in a bunch for an hour. By the time we were through it was dark, and thick with rain, and it developed into a most unpleasant night. Visibility was for all practical purposes nil, and one could not help feeling rather anxious. To be responsible for the safety of the ship during one's watch when one was steaming at full speed through a thick mist in which one could not see a yard ahead, making no sound signals oneself and well aware that any other ship that might be about would not make any either, was a bit of a strain. The only consolation was that one might blunder into a " U " boat charging up its accumulators on the surface, and so by pure accident do some useful work. The probability of that happening was, however, too remote to be really sustaining. I see in my pocket diary the note that " things were very putrid on the bridge " that night on account of the darkness, and further that at 2 a.m. it was only the quickness of the quartermaster in obeying orders that saved us from running into a large steamer. She suddenly appeared out of the mist quite close on our starboard bow on a converging course. Both ships were going the same way, and there was no room to go under her stern. The only chance was to turn away from her, which we did, giving at the

same time two blasts on the whistle to indicate "I am directing my course to port." She turned to starboard, and in a few seconds had disappeared in the mist.

Next day we were in Milford Haven, and took in coal and provisions, and then left within 24 hours as three submarines were known to be outside. One of them had sunk two ships off the Irish coast by gunfire, and heavy firing had been heard off Strumble Head. Apparently they had started using guns again. It seemed to be the time to be at sea, and we pushed out for a look round. At sunset we were steaming north up the middle of the Irish Channel, when a submarine came to the surface barely 1000 yds. ahead. It brought its deck awash, and then dived again. Another chance for depth charges missed! It was absolutely heart-breaking. With them we could have shaken it to bits, or at the worst have rendered it so leaky that it would have been compelled to come to the surface, when we could have finished it off by gunfire. As it was, we had to go on. At dark we turned and steamed quickly back in the hopes of finding it on the surface. There were no signs of it where we had seen it before, and we went on for another 10 miles and then turned again. It was then quite dark, and the chances of finding it did not seem bright. Presently however broken water was sighted on the beam. Broken water had no business to be there, and a careful examination of the spot through binoculars revealed the fact that the broken water was the wash along the side of a large submarine steaming a parallel course on the surface. As I ran to my station aft at the 4" gun, I passed one of the burly stokers who had come to us as a volunteer from a trawler. He was surrounded by smoke boxes

which it was his duty to ignite and throw over the side if required to make a smoke screen. He was brooding over them, and seemed to be trying to remember how to start them off. I had no time to stop and refresh his memory, and besides I knew that we should not want them. All was ready at the gun. The sides of the house were down and the gun was loaded and ready for firing. The gun-layer and trainer stood impassively at the elevating and training wheels, while the loading numbers had more shells and cartridges at hand. Indeed the cartridge loader, our marine, who in spite of his 20 years of service had never yet seen a shot fired in anger, and who was most anxious to alter this state of affairs, had a cartridge under each arm and one in each hand. His moustache bristled with emotion and he followed the march of events with the keenest interest.

An order came through the voice pipe, "Open fire as soon as you see the target." "Ay, ay, sir. On which bow?" "Starboard bow." Round swung the gun until it was trained as far ahead as it would go without hitting the boat. As it seemed likely to be a touch and go affair, I told the gun-layer to open fire as soon as he saw the submarine without waiting for word from me. A second later, shouting, "I can see it, sir," he fired. The gun was reloaded in a flash, but the submarine could not be seen. A quiet voice came through the pipe. "You missed him. So did the torpedo, though it was running straight. He dived I think. Keep your men closed up. We will dodge about a bit and see if we can come across him again." What had happened was that the C.O. had made an attempt to ram, but as the submarine seemed to be diving he gave up the idea as he saw that he would not be there in time, and started to

swing the ship to bring the torpedo to bear. The C.O. had the idea that the submarine was short of electricity and that if we could only keep it submerged long enough it might have to come to the surface in daylight to charge up. For an hour we cruised around without seeing anything of it, and then the track of a torpedo, showing white in the water, passed under the bridge. That was a pretty close call. It cannot have missed by much, but why had it missed at all? The explanation why the ship was not blown to bits appears to be that the submarine was too close when it fired, and the torpedo had not had room to take up its proper depth. Torpedoes are always unsteady for a few hundred yards until they settle down. In this case it must have dived under us, as it was a beautiful shot as regards direction.

The submarine was submerged when it fired and must have judged the right moment to discharge the torpedo by sound. It was too dark for it to see through the periscope, unless it had a special one for use at night. Anyway it was an extraordinarily good effort on their part, and it can only have missed by a hairbreadth. We turned and steamed over the submarine, cursing the absence of depth charges. This was the third time in a few days that they might have been used with effect. It was bitter luck not to have them. We never had another chance except a rather doubtful one a few days later.

The first engineer was on deck when the torpedo track passed under the ship. He descended to the engine room, pale with fury. "What do you think has happened?" he asked the engineer on duty. "They have just fired a torpedo at us which passed under the boiler room. They *are* a dirty lot of swine." He forgot in his indignation that we had opened the

ball by firing a shell and also a torpedo at the submarine. It was not quite reasonable to object to their retaliating. Possibly the real cause of his annoyance was that the sacred boiler room had been imperilled. An engineer would not like that.

The C.O. complained afterwards that when the 4" was fired the shell nearly hit him on the bridge. He said that there was a blinding flash and the scream of a projectile past his ear. This was, of course, a joke on his part, as the boat swung out in its davits aft of the bridge gave ample clearance, but the shell certainly did pass within a few yards of him, going pretty fast too.

After zig-zagging about for another hour, or thereabouts, without finding any further signs of the presence of the " U " boat we continued on our course. At dawn next day we were back in the same neighbourhood. During the morning a signal came in that there was a submarine twelve miles off. There were three small coasters zig-zagging along when this message was received. All three of them suddenly rushed off at over twenty knots. They had previously been doing about eight. They were the new fast " Q " ships. Our ten knot gait did not permit us to compete and we went on our way.

After we had been away from our Base for three weeks the C.O. decided to go back to replenish stores and get some rest. On the return trip just after passing the Lizard Lighthouse one night a small craft of some sort was seen on the bow. We turned towards it, but lost sight of it. It probably was a " U " boat. A depth charge would have given it something to think about though it might not have damaged it. The " U " boat people hated depth charges. Even if these exploded too far off to

damage the hull they played havoc with the internal fittings, put out the lights, broke the electrical connections, and stirred things up generally, besides shaking the nerves of all on board. The crews of these submarines must have led a terrible life. From the moment they left harbour every ship they met was hostile. They were real pariahs of the sea, and every kind of trap was set for them. There was no release from the strain. Their lives were always in danger, every minute of the day and night. No wonder they hated the work, and showed an extraordinary lack of dash and initiative. If their submarines had been properly run, as our men would have run them, the position would have been desperate.

One day I was talking to one of the men cleaning the 4" gun. He expressed bitter regret that we did not get the submarine the other night, but said that he was convinced that we should have one yet "booted and spurred," and that before long too, as the war would be over in January, '18, when the forty-two months mentioned in the Bible would be up. I asked him where the prophesy was to be found, and he said it was "in Genesis or Mark," he was not sure which. I doubt if it is in Genesis.

On the 12th December, '17, we entered Falmouth harbour. Our orders were to join up there with a convoy going to Gibraltar. Apparently our rôle was to pick up the pieces should any of the convoy get torpedoed, to act as ocean escort as far as our 10 knot speed would permit, and to make ourselves generally useful to the Commodore of the convoy.

The trip down the Channel to Falmouth had been uneventful except for a dreadful few minutes south of Portsmouth, when we got mixed up with a convoy going across to France. It was thick misty weather,

and we were steaming along quietly at night when three green sidelights were suddenly switched on fairly close on the starboard beam. They did not matter as they must go clear, but when two red lights appeared on the bow it was a different thing altogether. The helm was put hardaport to clear them. The manœuvre was successful, but it landed us right in the middle of a large convoy of which the ships we had just missed formed part. Ships and lights loomed up in all directions, and in the next few minutes we did a lot of dodging to get clear.

It was the 18th December before the convoy, which consisted of eleven large ships, one of them in charge of a negro, was complete and ready to sail. Two T.B.D.'s and six trawlers were to see us into the Bay of Biscay, and an American gunboat was to go all the way to Gibraltar as ocean escort. In spite of our low speed it seemed that we also were considered a fighting ship, and part of the escort. We were the last ship out of the harbour, as we had gone alongside a collier to fill right up with coal. It looked like being a close thing whether we should have enough for the trip, and to avoid any chance of running out we filled up immediately before leaving. There was a big sea running outside, and a cold N.E. wind was blowing. The convoy steamed out of harbour in line ahead, and kept this formation for some distance, and then on a signal turned 40° for a couple of miles. The leaders of columns then turned on to the course, and the others formed up astern of them. The two T.B.D.'s zig-zagged ahead of the leading ships, and three trawlers steamed on each beam. The convoy covered a good deal of ground, as it was disposed in five columns, with two or three ships in each column.

The American gunboat steamed abreast of the Commodore's ship, and we kept astern of every one.

The convoy was pretty well scattered at dawn next morning, and took nearly three hours to get into position, but except for two laggards it kept fairly well together after that. At dusk the T.B.D. and trawlers drew off and collected on our port quarter to wait for an American convoy which was due. They did not have to wait long, as the five ships forming the convoy were sighted almost at once. The ships were full of American soldiers. An American destroyer led them and our two T.B.D.'s joined up, but the trawlers could not keep up and went home by themselves. At midnight one of the destroyers which had left us sent a W/T signal reporting a submarine in a position near the track we had followed. The American convoy must have passed over it practically, or one of their escort would not have sighted it.

As we got south the weather improved and the sun shone warmly, and brightened things up. In spite of the smoother sea the convoy did not get along very fast, and only managed between 8 and 9 knots. Even at that speed two of the ships began to lag behind. As one of them was reported to be an eleven knot ship we steamed up and urged the Captain to increase speed. He replied, "I have never steamed better in my life and am doing very well for an eight knot ship." So that was why he could not increase speed. The other ship was an Italian and protested that she could not go any faster. Thereupon we closed the Commodore and reported that the two ships astern could not keep up, and were told to remain with them during the day, and that speed would be reduced during the night to enable them to catch up.

All that day therefore we kept near them. One of them took in the W/T Press News and passed it on to us, and so as we steamed down the Bay of Biscay we learned that there had been an air raid on London, and that there was no change on the Western front.

Each day at noon the Commodore hoisted a signal asking each ship to indicate its position at noon. There were usually some differences of opinion as to where we were. The greatest difference noticed was 17 miles of latitude and 20 miles of longitude.

Every afternoon he signalled his orders for the night by flags, and also fixed a rendezvous in case of separation. Each ship repeated these signals to show that they had been correctly taken in.

As we worked south W/T messages kept on coming in reporting the presence of hostile submarines ahead more or less on our track, and the Commodore finally decided to alter course in towards the land to avoid them. This alteration shortened the passage by about a day and was welcome on that account, since S—— and I were getting a bit short of sleep, and so was the C.O. for that matter. The American gunboat was better off in that respect, as she carried six watch keeping officers against our two. They worked in three watches, two officers in each watch. We worked in two watches, except for the morning watch which the C.O. always stood, with one officer in each watch. This gunboat, by the way, was the most extraordinary craft in appearance it is possible to imagine. She was short and was fitted with two very high masts, and her funnels were more than twice the usual height. The effect was rather striking. At night when she was at a certain distance she looked very much like a submarine, and on at least two occasions we meditated firing at her. I suggested

to the C.O. that a signal should be made to the Commodore requesting that the gunboat's activities should be stopped at night as the nerves of the watch keeping officers in our ship were getting worn out by continually sighting her in the dark and mistaking her for a "U" boat, but he could not see his way to doing this.

When nearing the latitude of the Spanish coast we were ordered to go 5 miles ahead of the convoy and zig-zag about in that position, keeping a good look out for any signs of submarines. The locality was unhealthy, and the Danger Area Escort of T.B.D.'s and small craft should have been with us before then, but had not turned up. From W/T messages which were passing between the Commodore and Gibraltar it seemed that the latter had not grasped the fact that the route originally fixed had been given up on account of submarine activity along it, and that in consequence the convoy would not arrive at the old rendezvous at all, but wished to be met by the escort on the new route. Of course we intercepted the messages and the replies, and the Commodore's signals seemed to be perfectly clear and gave the position of the convoy, its course and speed, but Gibraltar admitted itself defeated by them and said that all the signals were incomprehensible. As a result we did not meet the escort at all. As it happened, this did not matter, as we got in safely on Christmas Eve after a passage of six days.

It was quite pleasant to get back to summer for a few days. When we left the Channel a strong N.E. wind had been blowing and it had been bitterly cold, but at Gibraltar a warm sun shone brightly, and when the C.O. and I climbed the Rock on the afternoon of our arrival we found the heat rather oppressive.

While waiting for a return convoy to collect we made the acquaintance of several American officers from the warships in harbour, and found them exceedingly pleasant, and as keen as mustard. They were greatly interested in our little ship, but I think they disapproved of our motto, "Gloria sine periculo." Several of them looked at it gravely and passed on without comment.

On the 31st December the convoy put to sea, under the protection of an American cruiser, which was to form the ocean escort, and a number of other small ships, all of which, except the cruiser, left at dark. There were 11 ships in the convoy again. During the night the wind increased and blew hard from the S.E., raising a big lump of a sea, and at dawn one of the ships parted its rudder chains and fell out. We wallowed towards her to inquire what the trouble was, and on being informed made off after the convoy to report. The Commodore told us to remain behind and form a link between the disabled ship and the convoy, endeavouring to keep both in sight. By noon the wind had got round to the S.W. and a heavy swell set in which caused us to roll 40° each way. There was so much water in my cabin that drastic steps seemed called for, and the engineers drilled a small hole through the deck to permit the water to run into the hold. This cured the trouble.

At dark it became a difficult matter to keep in touch with the convoy and also the ship astern, but we managed it somehow. At dawn one of the other ships was missing. It had also had trouble with its rudder and had fallen out. The heavy sea made steering very difficult and put a big strain on the rudder chains. If there were any weak points it found them out. It also reduced the speed of the convoy to 6 knots,

rather a serious matter for us, as it raised the question whether we could hold out in coal and water. Next day owing to the heavy sea the speed fell to $4\frac{1}{2}$ knots. One of the ships in the convoy was very little bigger than we were, and she was like a half tide rock. The sea went right across her decks. Our meals became a mockery. Tea and coffee were always there at the right time, but cooking practically ended there, and all the food came out of tins. We used to take it in turns to hold the teapot between our feet. That was the only way of keeping it upright. Our turns of duty on the bridge were also very unpleasant. For one thing it rained incessantly for three days and visibility was reduced to a mile. The nights were dark and station keeping became a nightmare. And so we crawled northward, taking bad weather with us the whole way. On the sixth day out the Destroyer Escort was due to take us up the Channel, and it put in an appearance up to time, which was rather surprising, and argued sound judgment on the part of the Commodore. He had brought the slow steaming convoy across the Bay in terrible weather, and had had no opportunity of checking his position by "sights," yet he managed to estimate his course, speed and leeway with such accuracy that he had been able to signal to the T.B.D.'s the position he would be in at a certain time, and they had made for it and found him. Their navigation had not been any too simple either, but they had speed in their favour, and had had a good "departure" the day before. Altogether it was rather a wonderful affair.

The bad weather clung to us until we were off the English coast. It had been rough all the way, but it had saved up an extra bit for us to wind up with, and when off Ushant we caught it hot and strong.

The wind had been increasing all the afternoon, and working round to the N.W. bringing the sea on the beam. At dark we were on the starboard side of the convoy astern of three of the trawler escort. The two T.B.D.'s were ahead zig-zagging on the bows. A whole gale was then blowing with incessant snow squalls, and it was bitterly cold on the bridge, and impossible to see anything ahead when the squalls were on. Everything was blotted out then. The heavy sea on the beam caused the ship to roll in the most maddening way, and it was necessary to hold on to avoid being thrown about the bridge. It was indeed an unrestful time. Spray flew over the ship in sheets and at unexpected moments poured in bucketfuls down one's neck from the top of the wheelhouse. Every one went off watch wet to the skin and chilled through, with the single exception of the quartermaster who kept warm and snug in the wheelhouse. Neither S—— nor I could write up the log book when on watch. Our hands were numbed. The one coming on duty had to do that. Fortunately one of the ships ahead, a trawler, was showing a stern light, and we hung on to that. It was the only thing in sight. At length dawn broke, and revealed a wild scene. All round were fine big seas with breaking white tops, while spindrift blew along the surface like low lying rain storms. Dawn revealed that, but it also revealed something else which caused a certain amount of surprise. Not a ship of the convoy was in sight! The whole lot had completely disappeared. All the ships of the escort were there in good formation, but nothing else. The two T.B.D.'s drew together and rapid semaphore signals passed, while the trawlers and ourselves wallowed along behind. Then one of the destroyers shot off to the N.W., and the other

went S.E. A quarter of an hour later the T.B.D. to the northward flashed "the convoy bears N.W. of you," and we all swung round and made off as fast as we could steam. The masts and funnels of the missing ships soon showed up on the horizon, but before this happened a polite message came in from the Commodore asking to be informed when we proposed to take steps to rejoin him. He probably saw in his mind's eye his valuable convoy falling a prey to a wandering "U" boat while the escort was away. It was a most mysterious affair and how it happened was not explained until later, when it appeared that the Commodore feared that the convoy would be set in too near the rocks off Ushant when, after dark, the wind sprang up so fiercely on his beam. To counteract this he ordered an alteration of course out to sea at 8 p.m. Owing to the heavy squalls the signal was only seen by the ships in the convoy. It was invisible to the vessels of the escort lying further out on the beams. Consequently the convoy went out to sea while the escort kept on the old course. At dawn the two groups of ships were miles apart. As a rule, all orders were given during the hours of daylight to avoid a lot of flashing going on at night, which was, of course, very undesirable, but an exception had to be made on this occasion owing to the alteration in the weather conditions.

When we caught them up two ships were lying stopped on account of steering gear trouble, and the rest were spread over a wide expanse of heaving sea. There was not much risk of attack from "U" boats, however, as the latter are shy of attacking in rough water. Submarines are then very difficult to handle at periscope depth and have a tendency to take charge and come to the surface.

As time went on the weather improved and by the evening the wind had fallen to a fresh breeze. The convoy was then off the coast of France. At midnight a " P " boat arrived to escort one of the ships to a French port. Naturally it did not know whereabouts the ship was to be found, and steamed boldly into the middle of the convoy to make inquiries. It soon found its victim and bore it off, while the rest of the convoy recovered from the momentary confusion occasioned by the " P " boat steaming through them from starboard to port. Next morning the convoy was on the English side of the Channel, and the formation was altered from columns abreast to single line ahead. At dusk we were off Dover, where the Commodore wished to land. He signalled us alongside, and asked us to send a boat : he did not want to use one of his own, as the ship he was in only had a native crew. He steamed in under the land to smooth the water and we sent a boat across. The convoy was told to proceed to the Downs, and disperse.

The Commodore was very anxious to get to town that night, and as soon as we had anchored we signalled for a boat to take him on shore. It was some time before one arrived and in the meantime we asked him to join us at dinner. Provisions were very short and the *pièce de résistance* was curried rabbit from a tin. Unfortunately he could not eat curry, and we were filled with dismay since, as far as we knew, nothing else was to be had. Our resourceful marine produced some cold meat, however, and saved the situation. He always had something up his sleeve, and really was a wonderful caterer. If there was any food in the land he would get it somehow or other, and he never let us down once.

Before leaving the Commodore asked the C.O. when he would be ready to sail, as he wanted us to go out with his next convoy, having, he said, found us very useful. The C.O. did not, however, commit himself. As a matter of fact he did not want to go again. He preferred steaming lone-handed, and still hoped for a decisive engagement with a "U" boat. As for me, my thoughts at that time were all with the hydrophone trawlers. That was a fine attacking weapon, and one which, if it was as good as it was said to be, must inevitably turn the scale against the submarine. Chasing and attacking were much more attractive than creeping about with a convoy hoping that a "U" boat would not attack, or creeping about alone hoping that it would. I never was a believer in the policy of leaving the initiative to the other man.

At the end of January we were once more in the Irish Channel. The appearance of the ship had been slightly altered by the addition of an upper bridge over the wheelhouse. She had also been dazzle painted. There had been a good deal of fog on the way round. Off the North Foreland it shut down as thick as a blanket. That is one of the worst places to be caught in a fog, as the tides circle round the clock every six hours, but the C.O. managed very skilfully to make the Downs and pass through. The fog persisted in the Channel. When we were passing Dungeness a trawler's high pitched whistle was heard on the port bow. It seemed a good way off, but a minute later it sounded on the quarter. We had not expected that. Instead of being some way away the trawler must have been almost alongside or it could not have altered its position so rapidly in the time.

After we had passed Beachy Head the weather cleared. Two large steamers and a T.B.D. escort overtook us about there and passed on ahead. While they were still in sight the sound of a gun was heard, and a W/T message was intercepted from the T.B.D. stating that a submarine had been sighted and fired at. We followed in their track, but it took no notice of us. Very likely it had a look but thought we were too small.

Another W/T signal was also intercepted from a ship, which we could not identify, of a most cheering tenour. "Have attacked and sunk an enemy submarine in position——" They must have been feeling very pleased on board that ship, and we felt a pang of envy. We had missed our chance through the want of proper equipment.

When we left Milford Haven we were rather short of men, as three were in hospital and one in "detention." That was the only case requiring serious punishment we had during the whole commission, and that was foolishness more than anything. There were of course occasional cases of minor offences which were met by the stoppage of a few days' leave, but real punishments were very rare. The secret was that the men had the greatest esteem and respect for the C.O. He stood no nonsense from anyone, but he was always perfectly fair and just and the hands liked him. The way he handled the few cases which cropped up from time to time excited my admiration. Each case was treated in what seemed to me the best possible way. "Complaints" and some "Requests" came to me but he attended to punishments. The "Complaints" affairs were sometimes rather amusing when the trawlermen were involved. They were splendid men, as willing and

obliging as possible, but they had no idea of standing to attention or what to do about their caps. The petty officer used to bring them along, and if they stood in the wrong place or held themselves in the wrong way, he would instruct them in a loud whisper with an absolutely impassive face, keeping at the same time a watchful eye on their caps in case they did the wrong thing with them. The active service ratings were also a good crowd, but I never felt at home with them as I did with the trawlermen. One or two of them showed a tendency, when opportunity offered, to take advantage of my ignorance of the Navy way of doing things. There is no use blinking the fact that they did not like R.N.R. officers. The men in the Royal Navy are a splendid lot of men, unequalled in their way, and they like and respect their own officers and are wonderfully loyal to them, but the R.N.R. Officer has been brought up in a totally different school, and is not familiar with the thousand and one details of routine which make up their life, and they do not like him. That at least was the feeling I had. It seems natural enough too.

On the 2nd February, '18, we entered Queenstown harbour, after a rough passage from Milford Haven, but did not stop longer than a few hours, as news came in of a submarine operating off Pendeen Lighthouse on the north coast of Cornwall. The C.O. decided to go there at once, and we left in the afternoon of the same day. It was a rough night and soon after midnight it came on very thick. In the early morning the Smalls Lighthouse was due, but we failed to sight it. It would have been unwise to go on under the circumstances and we turned and steamed out, sounding as we went. On reaching a certain depth we turned S.W. and later east. About

10 a.m. a W/T signal came in from a “ Q ” ship warning us to keep a sharp lookout as a submarine was off St. Ann’s Head. We headed that way and before long sighted a cluster of ships, mostly trawlers, round a large ship which was very much down by the stern. She had evidently been torpedoed or mined. As we got up, a tug made fast and started to tow, and our offer to get another line on board and to lend a hand at towing was refused. Very slowly did she respond to the drag of the tug, and begin to move towards the harbour, which was fortunately not far away. As we watched her crawling along another W/T message came addressed to us ordering us to a position further up the Bristol Channel where a ship had been torpedoed. A large convoy of 20 ships came out of Milford Haven as we passed, and formed up with its escort. The spot was full of activity, as with patrol trawlers, drifters, convoy, and escort there were over 50 ships in sight at once.

Another W/T signal came in soon afterwards ordering the patrols to send back to port all traffic leaving the Bristol Channel. This was followed by another one telling the patrols to look out for a boat containing 15 men belonging to a ship which had been torpedoed a few miles further south. This boat appeared to be missing, from what we gathered. “ U ” boats seemed to be very active round that part. The question was what would they do next ? Having made a stir and collected the patrols, would they stop in the middle of them or would they move off somewhere else ? If so, where ? It seemed possible that they would go further north up the Irish Channel, in which case one at least might be expected to pass Lundy Island during the night, and as soon as we had passed through the position to which we had been

ordered without anything happening we made for Lundy Island. All that night we steamed east and west, 20 miles out and 20 miles back in the hopes of catching a submarine shifting his ground from north to south, or from south to north, but nothing suspicious was seen. I was very tired when I went off duty at 8 p.m. and after a hasty meal turned in. When the messenger called me at 11.45 p.m. I was so deep in sleep that he could hardly rouse me. "Do you want any hot water, sir? It is a quarter to twelve." Did I want any hot water? I really had no idea. Why should I want hot water? I could not imagine, but said yes on principle. It was only after I had turned out that it slowly dawned on me that I wanted coffee, and hence hot water.

Armed with a jug of coffee and a biscuit I waded through the water washing about in the well deck, and so gained the bridge, where S—— was anxiously awaiting my arrival. He was, as was usual with the man going off duty, in very good spirits, and he told me what were the orders for the night, and gave a humorous summary of the various false "panics" which had occurred in his watch, and then went blithely down the ladder bunkwards. The man going on watch viewed things from a different standpoint altogether, but I never minded night watches if the weather were moderately clear. Foggy nights I disliked when it was impossible to see, and when one might at any moment crash into another ship, and almost certainly kill a number of men; or rough, dark, windy and rainy nights when again it was difficult to see more than a few yards, and all that one could do was to hold on, cold, wet, and utterly miserable, and try to pierce the surrounding gloom. Both S—— and I were desperately anxious not to

miss a chance at a " U " boat, as they always came up at night to ventilate, and charge up accumulators, and we used to get wound up to concert-pitch in about two minutes after going on duty. For the next four hours we carefully and systematically examined every part of the horizon. A wave would heave up black against the sky. What was that? Was it a ship of some sort? A sustained examination would follow. No, a false alarm, it was only a wave, and so the time would pass. When our relief arrived all care, anxiety, and responsibility dropped from us in a second, and we went below utterly unconcerned. The change was most remarkable, and we both commented on it. One second completely altered one's entire point of view.

The upper bridge which had been fitted the last time we were in port proved to be a great improvement, as from it one could obtain a view all round. On the lower bridge it was only possible to see on one side. It had the drawbacks of being cold and draughty, and out of reach of the engine room telegraph and voice pipe, but on the whole it was an improvement, and the officer on duty always took up his position there.

Next day we were steaming north up the Irish Sea when a W/T signal arrived ordering us to proceed to Scarpa (Outer Hebrides), and instructing us to state the expected time of arrival. What was in the wind? According to the " Pilot " Scarpa was a small island off the west coast of Lewis. It had 167 inhabitants, and a few sheep. It seemed strange that we should have to go there, and we began to suspect that Scapa Flow must be meant. However, the message was clear enough, and we replied that we expected to be there in 48 hours, and started off.



The Irish Sea seemed to be full of trouble just then. A ship had been torpedoed north of Belfast Lough, and another one off Lynus Head in Wales, while an "S.O.S." signal came in from a ship 20 miles east of Dublin, and one 80 miles further north signalled that it was in distress. We were nearer to Lynus Head than to any of the other positions, and it was very little out of our way, and the C.O. decided to pass close to it on the off chance that the submarine would attack. At 7 p.m. we were on the spot and kept a very sharp look out, as the "U" boat could not be far away. Nothing of the submarine was seen, but presently a trawler burst out of the darkness, and made a spirited attempt to ram us, apparently under the impression that we were the submarine he was looking for. The sidelights were switched on, and he then sheered off. It was a tiring night, and bad weather was coming on. "Black objects" seemed to be everywhere, but they were mostly imaginary. Not all, however, as a large "black object" was suddenly discovered on the quarter, a T.B.D. which had slid up out of nowhere to have a look at us. Another black object loomed up ahead with startling suddenness—a steamer coming towards us. In the morning watch it rained and blew very hard, a whole gale. The C.O. was standing that watch in spite of having been up a good part of the night. At one time he heard a movement behind him and on looking round was very surprised to see what appeared to be a small donkey. It resolved itself into a piece of linoleum lifted by the wind and billowing about.

Next morning a trawler steamed up and signalled us to proceed to Belfast Lough. We replied "This is H.M.S. 'Tayne,' on special service." The trawler

officer replied, " The orders are for you." So round we went, but no one knew anything about us when we arrived, and a telegram had to be sent to the Admiralty.

Belfast seemed to be very busy turning out ships. There was quite an air of bustle everywhere, and the noise of pneumatic riveters was deafening. The place seemed very much alive. No sooner were we alongside the quay than a Lieutenant R.N.R. came on board, and proposed to take out our little 3 pdr. aft, and put in a bigger gun. A 3 pdr. was no use, he said. We should be better off with a larger gun. We explained that the gun was for show, and not for use, and that the gun's crew had strict orders when replying to submarine gunfire to keep their shots short. " Oh " he said, " what are you then ? " " A ' Q ' ship." " Sorry, old man," and he left. Soon afterwards an Army Major arrived and said, " I see that you have a small gun aft. It is not much of a thing, still it would be perhaps as well if I gave your men a little drill." He also retired hurt.

While waiting for a reply to the telegram we coaled. As a rule, we always had to do our own coaling, and every one in the ship including the officers, but not of course the C.O., turned to, with the exception of the cook and two or three others. It was a filthy business. On this occasion, however, men were sent to coal us. I took advantage of this to hire a jaunting car and drive out to the suburbs to see some relatives. The driver said that he had " three good sons " in France, and hoped that we should soon have the Germans " Tight held." " Pray God," he added, " they do not bate us, as some say they will." I hope I reassured him.

Ultimately a telegram was received from the Admiralty that we were to proceed, and it then transpired that we should never have been stopped. The only reason for sending us in was that a submarine was known to be ahead. Considering that we had spent a whole year in roaming the seas with the one object of being attacked by submarines we felt that some one should be hauled over the coals for stopping us when there was a chance of meeting one.

Once clear of the Lough we found a lot of wind and sea, and the further we got away from the land the worse things became. Heavy squalls blew up and it looked as if we were in for a dusting. The prospect was not pleasing as the west coast of the Hebrides up which we must pass is quite exposed to the Atlantic. However, the orders were to go to Scarpa and to Scarpa we had to go irrespective of what the weather was doing. By passing under the lee of Islay and through the Sound which separates it from Jura we got a few hours' shelter, but after that we rolled, pitched and wallowed in a heavy sea, and made very little headway. Squall after squall blew up, many of them accompanied by almost tropical rain, and in spite of sou'westers, oilskins, and sea boots the officer and the men on watch got wet to the skin. It was a bad night, but the little ship behaved admirably. She was of course smothered in water but she struggled bravely on and did amazingly well under the circumstances. We had to slow her down though, as at full speed she was taking too much heavy water on board. When I went off duty at midnight I made an exception to my rule of never touching alcohol when under way, and had a tot of whisky. I had been wet through for hours, and I thought it would do me good.

Just before dark next day we arrived off Scarpa. The run up after passing Barra Head, at the south end of South Uist, had not been so bad as the sea was then on the quarter, but she still wallowed a good deal and yawed about making it a difficult matter to keep her near her course. The C.O. estimated the height of the waves from trough to crest at 35 ft., and this seemed to be about correct, but they were wide-spaced, regular Atlantic rollers, though getting steeper and shorter as the water shoaled, and we made good progress. I must admit that I did not like the look of Scarpa at all. The whole coast is fringed with small islands and ugly, isolated rocks on which the sea was breaking heavily, and sending the spray hundreds of feet into the air. We had to pick our way in among these rocks to get round Scarpa and into Loch Resort which lies behind it. It seemed a desperate affair, but the C.O. never turned a hair. He liked handling ships, and I believe he enjoyed going in there, though it was indeed a passage perilous. He had, of course, plotted our track before hand on the chart, and had learned off by heart the bearings of the various rocks and headlands which he had chosen as guides for the points at which we were to alter course, and steamed serenely in, with fangs of rock sticking out of the water all round, and spray flying off them like shell bursts. The alteration, of course, to run in brought the sea on the other quarter, and the ship yawed about, and was very unsteady on her helm. Speed was increased to give her better steerage way. As we got in among the rocks the sea fell somewhat, each rock acting as a small breakwater, and by the time we were behind Scarpa Island it was relatively smooth. There is a good anchorage in Loch Resort;

an inlet in the mainland of Lewis immediately east of Scarpa. The Loch is several miles long, and lies between high cliffs, the southern one being perpendicular at the entrance. It is rather narrow, about 600 yds., and is completely landlocked. As we steamed up it one of the hands, gazing at the hills of rock and heather quite bare of any signs of cultivation or human life, asked me if anyone lived there, and on my telling him that there were nearly 200 people on Scarpa wondered if they spoke English, and added, "I expect they are blown-away Norwegians." It struck me as a rather deep remark. Certainly it was difficult to imagine anyone living there voluntarily, but if one were blown out to sea anything in the nature of dry land would be acceptable, however barren it might be.

Well, there we were according to instructions, and a very rough time we had had getting there. What was to be the next move? It suddenly occurred to the C.O. that he was the Senior Naval Officer present, and the brilliant idea flashed through his mind of sending a W/T signal to his confrère at Stornoway, who was very likely an Admiral, announcing his presence and asking for instructions. "S.N.O. Loch Resort to S.N.O. Stornoway." It looked very nice on the signal pad, but perhaps it would not do, and so a W/T message went off in the ordinary way. In due course a reply came back "Proceed to Scapa Flow." So it was a mistake sending us there after all. Roundly cursing the fool who had been responsible for our sufferings we weighed and left, and next day were anchored in Long Hope, one of the channels opening out of the Flow, and the C.O. had gone to report his arrival. On his return he told us that we were to operate for a time in the

northern areas of the North Sea, between the Shetlands and the Norwegian coast. The " U " boats working on the West Coast and in the Atlantic all passed out from the North Sea round the Orkneys and Shetlands. The Dover Straits were practically closed to them. The risks attending attempts to get through that way were altogether too great, and they had been driven to taking the longer, but rather safer, route round the north.

Our plans were to go to the Shetlands first, and from there steam over to the Norwegian coast, as if we were a small supply ship making for the White Sea. When over there we were to turn round and steam back, making the alteration of course at night, so as to avoid raising any suspicions should a submarine be watching.

We had hopes that we might possibly do some good this time, as every submarine going to the westward, or returning, would pass somewhere across our track, and the sight of a small coaster, apparently on its way to the White Sea with stores, might tempt the commanders to attack, probably by gunfire.

In the middle of February, '18, we left Scapa Flow for Lerwick in the Shetlands. The weather prophets told us before we started that an anti-cyclone was approaching and that we should have a fine passage, but it must have been dispersed on the way and never got so far north, as we experienced a gale and had a very wet and unrestful time. I had the " middle " that night I remember, and though I managed to get to the bridge fairly dry, when I went below at 4 a.m. I had to wade through water above my knees in the welldeck, and the unfortunate messenger, who accompanied me to get cocoa and jam sandwiches of biscuit for the C.O., claimed to have been in 4ft. of

water on his way back. As he was only 5 ft. in height it must have been up to his neck.

We intended to sail on the 18th February, but the S.N.O. would not allow us to leave on account of the state of the weather.

The wind dropped during the night of 18th February and we were able to get away next morning, but in a few hours bad weather came on again, and continued for 36 hours. On the 22nd land was sighted and we stood in to verify our position. It was a bitterly cold day, and the spray was freezing as it came on board. Luckily the wind was off the land, and though it blew freshly there was not much sea. We had not seen a single ship of any sort on the way across, but as we drew in to the land a steamer came into view heading south. We continued on our course and so did the steamer. When the two ships were half a mile apart the other vessel suddenly hoisted the German ensign. The C.O. could hardly believe his eyes. I think it was a real shock to him that any ship should dare to hoist the German ensign. "What ensign is that?" he asked me by way of having his eyesight checked. "The German, sir." "Signalman, hoist MN (Stop instantly). Go to action stations." The ship steamed unconcernedly on, and either could not make out or did not understand the signal. The C.O.'s first impulse had been to sink the ship on the spot, but the idea of capturing it then occurred to him, and a quiet voice came through the speaking tube, "Fire a shell across her bows." Down crashed the gunhouse, round swung the gun and a shell screamed through the air.

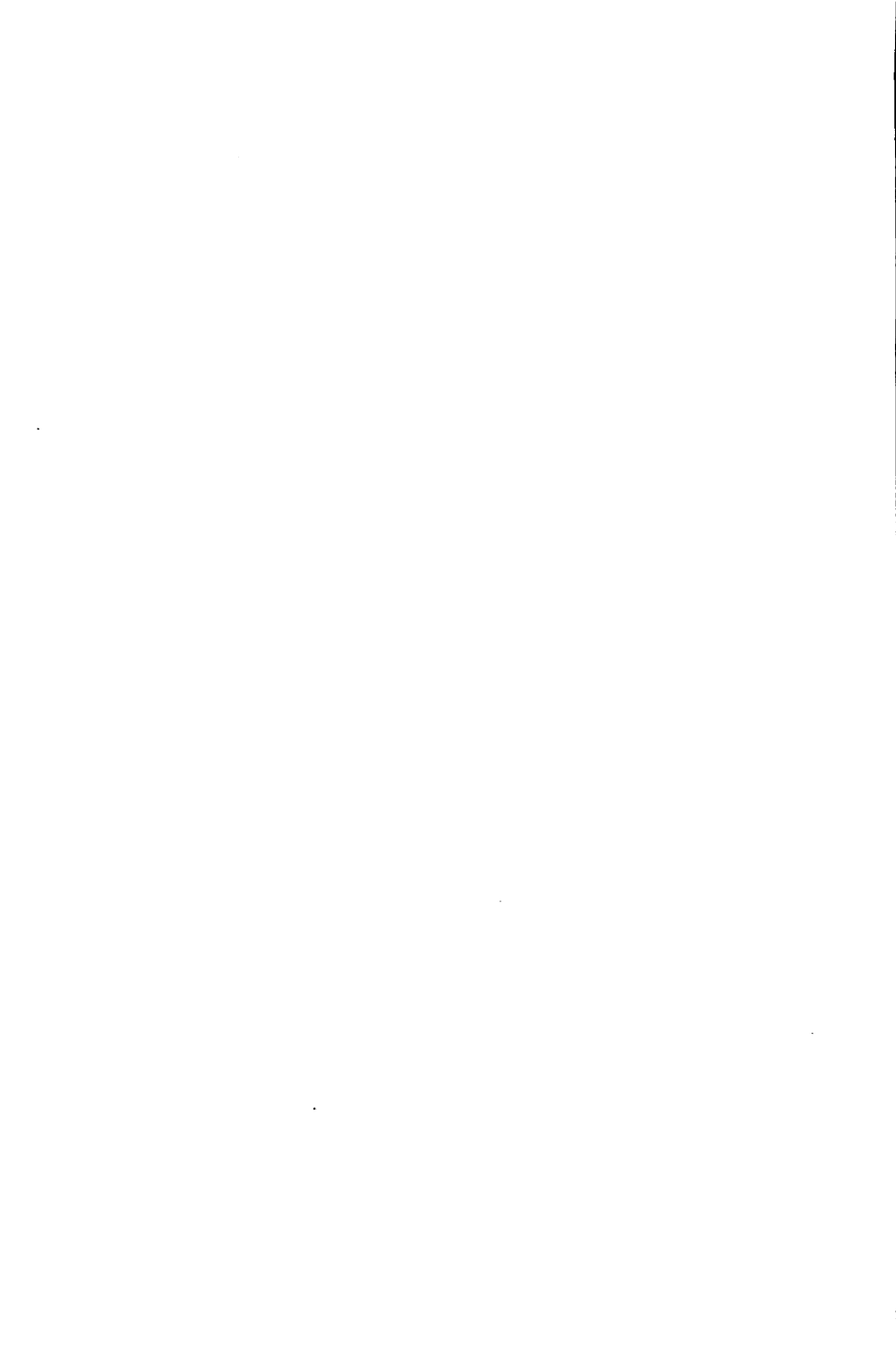
She stopped quick enough then, but what had happened to the shell? I did not see the splash when



HABET. GERMAN SHIP SINKING



CAPTURED GERMAN SHIP



I expected it, and a dreadful fear seized me that we had hit the ship, but no, long after I had given up all hopes of seeing the splash a column of water leaped into the air about four miles off towards the shore. I was greatly relieved. We then steamed round the Germans' stern keeping the gun trained on her, and stopped about 100 yds. inside her while the C.O. fixed the position by three bearings of marks on shore. We noticed a good deal of confusion on her decks. Men were running to and fro uncertain what to do. They lowered both their boats into the water, and then left them there with the falls still hooked on. They evidently did not like the look of things. Whenever they glanced at our ship they looked down the muzzle of a gun which had gone off once, and which might for all they knew go off again. They could see the gun-layer and trainer looking at them over the sights, and further back the loading numbers with more shells and cartridges all ready. Meanwhile a boarding party had left the ship, armed mostly with rifles as there were not enough revolvers to go round. As we pushed off the C.O. called out to me that he had taken the bearings and laid them off on the chart, and that the result showed that the ship was outside territorial waters, and that if she contained contraband I was to seize her.

The first four men I met on board were Norwegians, two of them Custom House Officers, and the other two pilots. One of the former had a Norwegian flag wrapped round his body. Apparently he did not mean to run any more risks than he was obliged to, and had decided that if any indiscriminate shooting were to take place, by any chance, his neutral flag would be respected, and as it covered the more vital parts of his body he might hope to survive. When the

Captain appeared I told him to order his men to fall in on the foredeck, which he at once did, and the men ran to obey. At first they appeared apprehensive as if they feared bad treatment, but when they found that we did not kick or shoot them, and that a certain amount of restraint marked the proceedings a reaction took place, and they began to regard the affair as a joyous adventure. Leaving the crew fallen in, and under guard, I went with the Captain to look at his ship's papers, and told him that the cargo was contraband, iron ore, and that the ship was seized as prize of war. He protested that he was in territorial waters, and I then told him that any protest he wished to make should be made to the Captain of my ship, and that I would send him across in my boat for the purpose. I also made him point out his engine room staff, which I meant to keep on board. The rest of the German crew went over in one of their own boats. I allowed them time to collect their gear and personal effects. While this was going on the party told off had searched the ship, and now reported that all the crew were on deck, and that there was plenty of food and water on board. The engineers had taken charge of the engine room directly they got on board, and reported that there was enough coal for three weeks.

Some amusing incidents had happened when we boarded. The decks and sides of the ship were covered with ice, and one of the men found difficulty in getting on board encumbered as he was by a rifle. He therefore confidently handed this to one of the Germans to hold while he climbed up!

Another of the men, a fine burly stoker, was noticed by the chief engineer striding along to the engine room with an impassive face but not otherwise

armed. " Hallo. Where is your rifle ? " " My rifle ? Oh, I left that in the boat."

It struck me that things were on a strangely friendly footing. The Norwegians, of course, were quite friendly—one of them later remarked that they were " English friendly " when in English ships, and " German friendly " when in German ships—but the German captain surprised me by offering me a cigar. Considering that I had just taken his ship away from him I had not expected that, but accepted it, after a moment's hesitation, as I did not wish to appear less courteous than he was. The German crew, too, were scrambling into their boat with their bundles apparently in great glee, laughing and joking among themselves as if they were going to a picnic. It was a curious scene.

Finally the bustle was over and both boats had gone, leaving a prize crew of seven all told and five Germans. A signal came from the C.O. " Proceed and good luck to you." My instructions were to make for Lerwick in the Shetlands, or Kirkwall in the Orkneys, whichever should prove to be the more convenient, and wait there for the " Tayne." The C.O. hoped by remaining behind for a day or two to capture another ship and bring her across, but I was to go on, and accordingly I stood out to sea. The " Tayne " headed for the land, and was soon picking her way among the rocks to reach a spot where she could put the Norwegians ashore.

Having got the ship on her homeward trip I at last had time to have a look round. The prize was a typical German cargo steamer of 1200 tons, flush-decked, and with two masts. Amidships round the engine room were store rooms and deck cabins for the engineers and leading hands. The captain and mate

had large and comfortable quarters on deck under the bridge, and the crew lived in the foc's'le forward. The bridge was quite a large affair with the wheel-house in the middle, and a small chart room behind it. The cargo consisted of 1,700 tons of iron ore. There was plenty of food on board, more than they would have required for the passage to Germany. They were probably taking the surplus to their families. There was a tub of butter, one of jam, a large stock of hams, bacon, and sausages, an excellent cheese, tins of sardines, fish balls, rye bread, and round disks of Norwegian bread, very hard and made apparently with straw as one ingredient, besides coffee and coffee substitutes, cocoa, salt fish and a variety of other things. But I was more interested in charts and navigating instruments, and as soon as I began to go into the matter I saw that things were going to be rather difficult. She had a complete set of coastal charts for the Norwegian and Baltic coasts, but not a single one of the North Sea. Neither could I find a sextant, though the ship was searched from end to end. This was a serious matter. Moreover, her patent log did not inspire confidence. It evidently had not been used for years, and had no governor. The compasses, too, were under the influence of the iron ore cargo, and were very sluggish and always swinging slowly about. Altogether things did not look very rosy, but the attempt to get her across somehow must be made. It was no use going back to the "Tayne" as I knew that she had neither sextant, charts, nor log to spare. The only thing that the C.O. might have done would have been to abandon the plan of waiting to capture another ship, and have gone across with me. I decided for weal or woe to go alone, and not to interfere with his plans, but I

now doubt whether it was a wise decision, as the chances of his capturing another ship once he had landed the Norwegians were practically nil. They would at once spread the news of the capture and divert the traffic inshore, where he could not have touched it, and at the same time advise the owners and thereby considerably increase the chances of the prize being cut off and recaptured on the way across by submarines.

Right or wrong on we went. The absence of a chart was very inconvenient. I knew the latitude and longitude of the ship's position, and also, from Brown's Nautical Almanac, the latitude and longitude of Lerwick, and could therefore quite easily calculate the course, but the question was whether there were any rocks in the way. A chart would have indicated this, but without one it was impossible to say what might be there. There was, however, a small pocket book on board, and among the flyleaves giving postal and other information was a minute map of Norway. This, of course, did not show outlying islands or rocks, but it gave a general idea of the run of the coast, and I shaped a course to clear the most westerly point by 25 miles. I had also brought with me a general chart of the North Sea on a very small scale, but it did not go nearly far enough north, though it came in useful later on when we were further south.

Having got the ship on her course the first thing to do was to arrange the routine to be followed. There were two German engineers and three German stokers on board, and in addition I had brought one engineer and two stokers, besides a leading seaman and two A.B.'s, one of them an active service rating, and the other a trawlerman. My engineer took

general charge of the engine room, and under him the two German engineers and two of the German stokers worked, watch and watch. The third German stoker was made ship's cook. The two British stokers worked watch and watch as armed guard. One of them was always on watch armed with a revolver. On deck the leading seaman and I worked watch and watch on the bridge and in charge of the ship, while the two A.B.'s relieved each other at the wheel.

The language question was rather a difficulty, as I could not speak German, nor could any of the men, but one of the German engineers knew a few words of English, and we managed surprisingly well.

After steaming for half an hour the engines broke down. Marshall, the engineer, soon got them going again, but he said that they were not in a good condition, and that the lubricating oil was very inferior in quality and was more like tar than oil. This was not comforting news, as bad weather was coming on when they might very likely be severely tested. It was an added handicap. No chart, no sextant, and compass, log, and engines all doubtful. It was evidently going to be a bit of a struggle to get her across, but I never doubted that we should manage it if we could dodge the submarines. The latter made me a bit thoughtful, as I felt sure that an attempt would be made to cut us off.

Next day it seemed as if any question of submarines might safely be disregarded, as we were labouring along in a heavy sea against a whole gale, and I thought she would most likely break her back. With a more kindly cargo she would have been easier, but, deep laden as she was with an unyielding cargo for a trip in smooth water, she was too heavily handicapped to make much of a fight of it in a sea, and

instead of rising to the waves she crashed into them. This put a great strain on the hull, and she cannot have been far off the limit of what she could stand in that way. There was an unpleasant feel about her in the bigger seas. She buckled. Luckily she was flush-decked with open rails, and the seas simply poured over her as if she were a half tide rock, but did not hang about the decks. They came in over one bow and shot out on the other side after rushing across the deck in a great wave. The men living in the fo'c'sle could not get to it, and had to take up their quarters aft. All the cabins were soon awash, and it was found impossible to keep them clear. The hands slept in there to the sound of the sad sea waves washing to and fro on the floor. Though she was steaming as fast as it was safe to run the engines, we made no headway in the 24 hours, if anything we lost ground. She had no steerage way, and continually fell off into the trough of the seas on one side or the other, and was more often than not anything up to ten points off her course. It really did not matter much which way she pointed, as she was not going ahead. I was strongly tempted to stop the engines and let her drift. There would then have been no chance of her breaking her back, but the rock-bound coast of Norway was under the lee, and not as many miles away as I should have liked. To keep her steaming meant only the probability of her breaking her back and foundering, but to let her drift would make a certainty of shipwreck if the wind kept up, and I could not risk it. Moreover, the engines might break down at any time and I wanted to have as much sea room as possible in case that happened.

The wind moderated slightly in the early morning of the next day, and at times we were steaming at

nearly 4 knots. I tried to steam faster and with the object of urging the engineers on went down to the engine room after getting the German word for slow, "*langsam*," from the engine room telegraph on the bridge. I told the German engineer on duty that we were going too "*langsam*." "So" he said, and opened the steam valve a bit, but she was found to race so badly under more steam that it had to be reduced again. In the evening she broke down once more. The bottom end of the H.P. cylinder was the cause of the trouble. Marshall told me that he had found out from the ship's engineers that it had been giving trouble for some time, in fact it had seized up ten days before "we joined the ship." "Joined the ship" I thought was rather a good way of putting it. While she was stopped I took bearings of two stars to check the compass, and came to the conclusion that she was proceeding in a more or less W.S.W. direction, which was reassuring.

Next day the weather broke again and a westerly gale sprang up, and knocked the speed down to vanishing point. One wave leaped on to the bridge and smashed down the wind dodger, making things very uncomfortable up there for the future. Unfortunately I had not got an oilskin, and from then on was always wet, as I got soaked each watch and had nothing to change into. The whole business of the capture had been very sudden and my personal equipment consisted chiefly of a tooth brush and a revolver, which latter I wore day and night throughout the trip. I had taken up my quarters in the little chart room as it was in a good central position in case of trouble, and had the advantage of being fairly dry. There was, however, no sleeping accommodation there, only a rather narrow settee on which

I reclined and dozed when not on the bridge. I got very little real sleep. The conditions did not lend themselves to it, and there was too much at stake. Indeed, all hands were getting tired. The ship had an extraordinarily quick roll, owing to the nature of the cargo, and gave no one any rest. Getting about the decks was quite a dangerous business, nor could one stand anywhere without holding on. Two or three times I was thrown right across the bridge, and the same thing happened to others.

On the evening of the 20th February we were wallowing along in an extremely heavy sea when the engines broke down again. Marshall came up to say that he would have to replace the bottom end—luckily the ship's engineers had anticipated trouble and had a spare part on board—and that this would take about two hours. He asked whether the ship would swamp in the meantime. I told him that she would be easier stopped than steaming. At the same time the sea surprised me, it was so very short and steep with breaking crests, the sort of sea which might be expected in relatively shallow water. A cast of the lead was taken. It gave 30 fathoms. Now I knew perfectly well that there were no 30 fathom depths, nothing less than 60 fathoms shown on the charts anywhere within 100 miles of where I calculated the ship was then. It seemed a time to adopt Lord Haldane's plan of clear thinking, and I went into the chart room and sat down. Everything in there was sliding to and fro and racketing about in the most distracting and maddening way. Now, we were in 30 fathoms of water. But there were no depths of 30 fathoms anywhere between Norway and the Shetlands. Therefore we were not between Norway and the Shetlands. On the other hand there

were no 30 fathoms anywhere where we could have possibly got to in the time, no matter which way we had steamed. Therefore we were not in 30 fathoms. But we were.

The only conclusion I could come to was that the chart was wrong. It is a dangerous thing to get into the way of assuming that charts are wrong if things do not work out as one expected, but in this case I could see no other explanation. There seemed nothing for it but to go on as soon as the engine was repaired. I went to see how they were getting on, and found Marshall hard at it, assisted by his two stokers, while the German engineers acted as labourers. In smooth water in a harbour it might have been a straightforward job, but rolling about in a heavy sea, and with only one swinging oil lamp for light, it was a long and difficult affair. If Marshall had not been an exceptionally smart and efficient engineer it probably would not have been done at all, and the ship would ultimately have drifted back to the Norwegian coast and very likely gone ashore. The chief German engineer assured me that we should now do ten knots in smooth water and eight in a sea, but we actually averaged under 4 knots for the whole distance. It is true that we had exceptionally bad weather.

Next day I expected to see the Shetlands, but nothing was sighted. I went over all my calculations again without altering them materially. On paper the Shetlands ought to have been there, but actually they were not. As a matter of fact I was very uncertain of the position, and the sounding of the previous evening had not increased my confidence. If there had been a sextant on board it would have been a simple matter to have "fixed" the ship to within a mile or two, but without one I had to rely

solely on dead reckoning. As I was not sure of the log, and as the iron ore in the cargo appeared to have robbed the compass magnets of much of their directive force with the result that the rolling of the ship caused the compass card to swing sluggishly and aimlessly about, and I did not know what the course actually steered had been within a couple of points, I considered the position too doubtful to make it worth while chasing about after the Shetlands. It would only have been waste of time, and would have materially increased the risk of being snapped up by a submarine. I therefore altered course for the mainland in the afternoon. During the day the wind had veered to N.W. and dropped. At dusk it had backed to S.E. and later to N.E. and blew very hard, with frequent vicious squalls of snow and sleet. Things were almost intolerable on the bridge. It was impossible to see ahead in the squalls. It was very exhausting to stand, holding on to a stanchion, for four hours at a time buffeted by wind and spray, and engulfed at short intervals in snow squalls. Wet, cold work it was, but a good look out had to be kept, as the rocky, unlighted, shores of the Shetlands or Orkneys were somewhere around not very far off, and after all we had gone through I did not want to go crashing on to a rock for want of a little care.

In any case nothing was to be gained by worrying, and I tried hard to see the cheerful side. Things might easily have been worse. For instance we might have been hopelessly broken down. All sorts of things might have happened. Instead of that we were still steaming along, and had plenty of supplies, and though the ship was not where my calculations put her by keeping her S.W. we must ultimately arrive somewhere along the coast. Rather haphazard,

perhaps, but the best that could be done under the circumstances. The idea occurred to me that we might be further on than I thought, and have passed the Shetlands, in which case we were then steaming out into the Atlantic, but even so we should make the Hebrides at the very worst. As long as we did not meet a submarine we should be all right. Our course was taking us along their track round the north of the Orkneys, but that could not be helped. If the worse came to the worst we could always sink the ship, and take to the boats. My band of desperadoes quite favoured this plan, and Marshall slept with a maul in his bunk ready to smash the connections necessary to sink her.

All that night and the next day we ran on without seeing anything. The wind was dead astern, strong and very cold, and, though she steered very badly and sheered about all over the place, we were logging 7 knots. It was time something showed up in the shape of land, and I began to wonder what had happened to Scotland.

When I was called at midnight that night I was so tired that I felt I should be unable to last out the watch, but a cup of coffee brought by the armed guard revived me, and strenuous exercise up and down the bridge set me going again. At 6 a.m. the leading seaman came to report a flashing light on the star-board bow. At last. The next question was which light was it? The small scale chart did not give the characteristics of any Lights, but by searching through Brown's Almanac, beginning at the extreme north of the Shetlands, and working down the coast I ultimately identified it as the Bell Rock Lighthouse, off Dundee, which lit up for half an hour before sunrise each morning. It was a great relief to know

where we were, and I decided to celebrate it by two hours' sound sleep. No sooner did I lie down, however, than I remembered that this was rather a favourite spot for " U " boats. They were often about in the hope of getting a shot at the light cruisers leaving or returning to the Firth of Forth. Sleep had therefore to be postponed and I went on the bridge to look out for torpedoes, and try to dodge them. Luckily none were fired at us, as she was too slow on her helm to do much effective dodging.

When we were abreast of May Island three patrols steamed up. These were the first ships we had seen since leaving the Norwegian coast seven days previously. One of them agreed to report us. She, however, did not seem to understand the position and I hoisted the White Ensign over the German Mercantile Ensign for a few minutes, and then hauled both down and went on. At the Fidra Boom I took a pilot, as I had no charts. He had been a fisherman, and I asked him if he knew of a bank with 30 fathoms on it about 100 miles east of the Shetlands. He replied that it was well known to fishermen, who fished there regularly in peace-time, and that it was marked on some charts, but not on others. So that disposed of the sounding which had caused me so much mental exercise, and which had worried me not a little.

In the evening we anchored off Granton, and I reported to the S.N.O. and asked him to report me to the S.N.O. at Lerwick. The next evening an officer and armed party were sent to relieve me, and take charge of the prisoners. I took him round the ship and handed them over. They were all turned in and asleep, and when our arrival roused them and they saw a strange officer in the doorway, with a number of men armed with rifles behind him, they

all seemed to think that their last moments had come, and a startled look came into their faces. I explained as best I could that I was going away, and that the officer would take my place and their feeling of alarm subsided. It is only fair to record the fact that they had given no trouble from the start, and had acted in a perfectly loyal and straightforward manner throughout. They all did their best. I introduced on the voyage as much reserve as possible into the relations between the two parties, and would not allow the Germans to feed or associate with my men, but beyond that they formed part of the ship's company, and were free to move about as they liked in their own quarters.

On the 4th March my party rejoined the "Tayne" at Lerwick, and heard that they had given us up as lost at sea. They had arrived on the 28th February, but news of our arrival in the Firth of Forth on the 1st March did not reach them until the 3rd March as all the telegraph wires had been blown down by the gales. In the meantime they feared the worst, especially as the German captain had assured the C.O. that the ship was certain to have broken her back. He thought that she could not possibly have lived through the weather experienced. In addition there was the possibility that we had been cut off by submarines. On the evening that we left, the W/T operators in the "Tayne" intercepted a long German message on the submarine wave length. It was, of course, in code and could not be understood, but the C.O. thought that it contained instructions addressed to two German submarines to cut off and recapture the prize. Anyway two "U" boats were repeatedly sighted to the east of the Shetlands during the next few days. So that, taking it all round, perhaps it



H.M. Q SHIP TAYNE



THREE OF THE PRIZE CREW



THREE OF THE PRIZE CREW

was as well that I had no sextant on board. Had one been available I should very likely have lost the ship.

The " Tayne " had had a bad time too, and was in great danger in the gale which sprang up the day after I left. She was then patrolling outside the reefs, and as the conditions got worse tried to steam out, but found that she could make no headway against the heavy wind and sea, and indeed actually began to lose ground. While she was battling away the starboard boat filled with water in the davits, and as one of the suspension bolts gave way it had to be cut adrift. The position being desperate the C.O. decided to attempt to dash in through an opening in one of the reefs, and take shelter in a fiord, which had an anchorage. It was very doubtful whether she could be got into a position to run in. She had to steam along a reef to get to the entrance, and it was touch and go whether she would be able to clear the end without being blown on. She was in a very awkward position, but the right man was in charge, and his seamanship and nerve pulled her through, and she just, only just, did it. S—— told me that the ship was so close to the rocks at the turn that he could not bring himself to look over the side.

Next day the weather moderated slightly, and she left, and the following day started back to Lerwick. She experienced the same heavy weather that we did, and had a bad time. So much water was shipped that it rose almost to the furnace doors in the stokehold, and some of the wooden platforms in the engine room were floating about. Moreover, the bilge pumps kept on choking with coaldust, and a total stoppage was only averted by incessant efforts on the part of the two engineers, Stoker Petty Officer Fry, and Chief

Engineman Jacobson, working mostly under water. As a matter of fact all the engine room staff had continual and heavy work, and one of the stokers actually fainted once from exhaustion and immersion in the cold water.

When she got in she required a considerable overhaul. One boat had gone, and a number of things had been smashed on deck, while the engine room and bilges had to be thoroughly cleaned out and refitted, but we got away again in the middle of March. The sea was rough at the start, but soon went down and the trip across was very pleasant. Nothing was sighted the whole way across, and the watches appeared rather long. The nights, however, were full of charm. The atmosphere in those latitudes is very clear, and the stars were extraordinarily brilliant. At times, too, the Northern Lights showed up, great shafts of light shooting up in fan-shaped beams.

On this occasion we passed up the coast out of sight of land until in the Arctic Circle, and then headed in towards the land just south of the Lofoden Islands. While in the Arctic Circle, by the way, we picked up the Pohldu W/T Press News. As the operator in Cornwall, 1500 miles away, tapped out a letter we got it the same instant, and knew what was happening before most of the people in London.

The coast scenery as we approached looked magnificent in the sun. Ranges of high mountains, crowned with snow, came right down to the water's edge. They were much intersected with valleys, and showed wonderful contrasts of light and shadow. It was really a very fine picture. We coasted up and down hoping to be able to repeat our previous success and dodged in at times towards the coast on the off chance of picking up a German ship outside territorial

waters, but all the vessels we sighted were close inshore. Meanwhile, another " Q " ship was working independently, sometimes to the north and sometimes to the south.

On the second morning a small patrol steamer turned up and stopped us, and the Captain came on board to inquire who we were. While he was still on board the other " Q " ship appeared in sight coming from the north followed by a rather large cargo steamer, evidently a prize. The patrol Captain thereupon returned to his ship and went off to intercept the two and make inquiries. His idea appeared to be to have a sort of inquiry on board his ship, and after he had stopped the prize he hoisted a signal inviting the " Q " ship to send an officer on board. But the Captain of the " Q " ship was rather indignant at what he considered unwarranted interference on the part of the patrol, and refused to parley with him. Sustained by the conviction that he had captured in a legitimate manner a German cargo vessel outside territorial waters he could not bring himself to consider for a moment the idea of handing her over to a third party, or even discussing the matter, and it was so plain that he considered that he was in the right, and had no intention of yielding an inch, that the patrol after holding out as long as he thought it was politic, and trying a bluff which did not come off, hauled down his flags and remained stopped, while the " Q " ship and the prize steamed away.

We had not been directly involved in the affair, and played the part of spectators, ready to interfere if necessary, and, when the solution was reached by the two steaming off, we followed. Three ships steaming along together looked like a small convoy returning from the White Sea, and might be expected to interest

any "U" boats which might be about. The idea, however, was to part company the next day, but circumstances prevented this being carried out. In the first place it was found that the prize then had only 25 tons of coal, not enough for two days' steaming, and as she had over 600 miles to go to the nearest British port she would have to be towed part of the way. The other "Q" ship was too light for towing, and so the C.O. decided to remain and attempt it with the "Tayne," but nothing could be done that day as the weather was getting worse hourly. We spent the rest of the afternoon in trying to find out the exact number of hours she could steam, and whether she had any gear for towing. We had only a $3\frac{1}{2}$ " wire rope in the "Tayne." As it happened, no one on board the prize could read semaphore, not even the officer in command, a Lieutenant R.N.V.R., and we had to go alongside and shout. By that time there was a strong wind and they could not readily understand the questions though we went as close as was safe.

Time after time we had to go alongside to shout questions through a megaphone, and to get the replies, but in the end we succeeded in finding out what we wanted, though it was not pleasant news. They could not steam after 10 a.m. next day, and had no towing gear. Once more we closed them, and shouted that they were to have the anchor cable ready for towing at dawn. The plan was for us to throw them a light line when all was ready for towing. This they would haul in, and so drag on board a stouter line, to which would be attached the $3\frac{1}{2}$ " wire rope. They were then to shackle this on to the anchor cable and veer a good scope of the latter. The weight of the cable would ensure a certain amount of spring, but the plan would not be of any use in rough weather.

The sudden jerks then would certainly part the wire rope. All preparations were made, but the prospects of being able to tow were not good. Heavy weather was coming on rapidly, and after our experience of the last trip it began to appear likely that instead of towing the prize next day she would have to be abandoned, and sunk. By dusk a heavy sea was running. One wave crashed on board forward. The fo'c'sle head disappeared in a swirling mass of white water. It cleared, and a cloud of steam and smoke burst from the fo'c'sle. The cooking stove was at the foot of the ladder, and that cloud meant that the fo'c'sle tea had gone west. It was not difficult to imagine the bitter cursing that was going on down there. They were earning their "hard lying money," and the rest of the ship's company earned theirs at one time or another during the night. Dinner was a very spasmodic meal. The marine burst into the ward room with a soup tureen, staggered to the table, planted the tureen there and leaned heavily on it, with his legs stretched wide apart, and an agonized expression on his face. It was a regular scramble. We held on to what we could and the rest of the things cascaded about the table, taking the divisions of the fiddles in their stride. The cloth was a disgusting sight by the end of the meal. It was stained with coffee, soup, gravy, fruit juice, and other stains. But the second party had the worst time, as a green sea came on board aft, smashed in the panels of the ward room door and advanced into the ward room in the form of a wave. It swept things off the table, wted the two diners to the waist, and then distributed itself among the cabins. A messenger crawled up to the bridge.

"There's two foot of water in your cabin, sir."

"Thank you," I replied. In olden times bearers of bad news were killed.

Meanwhile we kept a close watch on the prize. She was steaming very slowly and steering very badly. At times she fell right off, and showed us her stern light, and most of the time she was in the trough of the sea with the wind on the starboard bow. This was a dangerous position, as it meant that she was sagging in towards the coast all the time, and the C.O. made desperate attempts, and took great risks of collision, to drive her on to the other tack, but in vain. Those on board her could not read our signals, ordering her to alter course, and ignored our efforts to get her round, and after a time we had to give it up, and simply keep her in sight. The other "Q" ship had lost touch, and had disappeared in the darkness and fury of the gale. At midnight the wind was very strong and was logged as "11," which is equal to 75 miles per hour. In the squalls it blew with hurricane force. It seemed as if the upper bridge must be blown clean out of her. The boats, too, gave some trouble, and worked loose. It was rather tricky work securing them, but none of the men were blown overboard fortunately. Considering the weather conditions, and the fact that we had to watch the prize driving in towards the rocks, the C.O. did not turn in all night, and I was too interested in the position to go below, and so stopped up with him after my watch was over. By 4 a.m. the wind had passed its greatest strength, and the barometer, which had fallen to 28.95, began to rise. I sent the messenger to make some cocoa. Good Navy cocoa is fine heartening stuff, especially when one's boots have been full of water as mine had, and we voted it to be the finest drink in the world. A few hours later the wind had dropped to a fresh

breeze, and the sea began to fall. The other " Q " ship had rejoined us at dawn. She had lost touch at 11 p.m. on the previous evening and had been looking for us all night. Both her boats had gone. She had rolled them into the sea during the night, and they had filled, and been torn out of the davits.

As 10 a.m. drew on, the hour when the prize must stop steaming for want of coal, it became evident that any idea of towing was out of the question. The sea was too rough. We therefore closed the other " Q " ship for a consultation, as a result of which it was decided to get the men out of the prize, and to sink her. We closed the latter and shouted through a megaphone, " Stop engines. Abandon ship. Before leaving arrange to sink her." The officer in charge waved his arm as a sign that he understood, and turned away. In a few minutes the ship stopped, and the crew could be seen clustered round one of the boats. Our companion ship then steamed to windward and started to discharge a continuous stream of thick oil to take the crests off the waves, and make things easier for the boat. Matters did not seem to be going any too well as regards getting that out. A crowd of men were round it, and a lot of work seemed to be going on, but the boat still rested in its chocks on the deck. To fill in time we also went up to windward, and poured out oil on to the sea. This of course did not reduce the height of the waves, but it quite stopped the crests from breaking. On our return the boat had been hoisted clear of the chocks, and was swinging violently to and fro, and knocking men down. As we arrived three men fell from the boat deck to the main deck. At times they succeeded in getting it swung half out, but each time it came inboard again, and things were as before. At last the C.O. decided

that it would not do to waste any more time, and that he would send one of the "Tayne's" boats. It was really the other ship's affair, as they had captured the prize and their men were on board, but as they had no boats left they could not do anything to help. Our seaboat was accordingly called away, and the men were told to put on lifebelts. Every preparation was made for lowering her, and getting her clear quickly. The crew got in before anything was cast off, and the boat gripes were then cut to save time in unreeving them, and the lowering began at once. Crossed lifelines prevented the boat from surging fore and aft, and men with fenders followed her down so that when she swung inward she hit a fender instead of the ship's side. Everything worked without a hitch until we were near the water, when the forward fall jambed. This obliged the man at the aft fall to check. In the meantime the man at the forward fall had cleared the jamb, and fearing that he must by then be behindhand he let run, with the result that we plunged down and took the water bows first. Luckily she was fitted with patent release gear, and at the word the man at the lever pulled it up, both fall blocks came clear, and the stern fell into the water with a smack. "Out oars. Shove her off," and she was clear of the dreaded rubbing strake. "Well done," shouted the gratified C.O., beaming down on us. He really meant "Thank goodness you are all right, and have not been upset," as of course we in the boat had not done anything, while the men at the falls had not done remarkably well and had in fact nearly capsized us.

The "Tayne" then steamed off to pour more oil on the sea, and we made for the prize. Those on board were still struggling with the boat, and by the time we were alongside had actually got it swung out and

ready for lowering. I shouted for the officer and told him that I had been sent to take every one off, and that I would take his crowd first as I could not take them all in one trip. " Englishmen first." The Germans were lining the rail ready to be the first to quit, and when they heard this they jumped to the conclusion, as we heard later, that it was a plot to leave them altogether. Meanwhile the Britons began coming down the rope ladder. It was not an easy matter to get them on board as we were rising and falling a good 12 feet in the swell. They came down a few rungs and waited for the word. As we swung up on the crest of a wave we shouted " Let go," and they dropped into the boat. One of the men who climbed over the rail was a big, burly fellow, and I thought he might very well be a German, and shouted to him to stop. " Are you an Englishman ? " " No, sir," he replied in a rather indignant tone of voice, " I'm Scotch." " You'll do. Come on." Most, if not all, Scotchmen have a secret, and not always secret, contempt for Englishmen, and hate to be mistaken for them. As a rule, Englishmen do not mind this attitude in the least.

After half a dozen men had dropped safely into the boat the officer appeared, and asked me to move off and allow him to lower his boat. It seemed that the Germans feared to be left behind, and had asked him to make one more effort. As he made a point of it I pushed off, and in response to a semaphore signal from the " Tayne " made for the small " Q " ship. The latter had a low freeboard and no rubbing strake and boarding her was quite a simple matter. As we approached we noticed that she had lifelines rigged outside the ship from the bow to the stern, and when we got on board the Captain said that he had had the

intention of running alongside the prize to enable the crew to jump on board. The lifelines were for anyone who might fall into the sea. This plan, of course, fell through when the "Tayne" lowered her boat.

While we were getting the men out of the boat the people left in the prize continued their efforts to lower their boat, and ultimately succeeded in doing so. As it happened, no one was lowered in it to unhook the fall blocks, and in the end it broke away and bumped itself clear before anyone got into it. Our boat had therefore to make another trip, and I took two men out of her and asked the Captain to tow it near the prize. This he did and while the balance of the party were getting into it he chased and secured the German ship's boat. This was hooked on and hoisted out of the water, and then the ship rolled into a sea, and the boat filled, and broke away, and was lost.

The "Tayne's" boat then approached with the remainder of the German ship's company. I was very anxious to return to the "Tayne" with my boat's crew, and made a signal asking permission to do so, but the C.O. replied that it would be too dangerous on account of the rubbing strake, and that he could not permit it. So we had to stop where we were.

Meanwhile the prize did not show any signs of sinking, and I sought out the officer, and asked him if any steps had been taken with that object. He replied that the Kingston valves had been opened before they left. The engineer contradicted this. He had opened them, he said, on getting the order, but when he came on deck and saw how much trouble they were having with the boat he went back, and closed them again. A signal was accordingly made to the "Tayne" that no steps had been taken to sink the ship. The "Tayne" thereupon opened fire with her 4" gun and

fired 10 rounds, and then secured the gun and stood off. In an extraordinarily short time the effect became visible. The prize took a list; then waves began breaking on the rail; then on the deck; then the bows dipped and waves broke over all the part forward of the bridge. She was going fast. The deckhouse sank out of sight, steam poured out of the funnels and ventilators, the stern came out of the water, and down she went, leaving a patch of white water to mark the spot where she had disappeared. A little woodwork, hatches or something of that sort, floated about, and that was all. It was a sad sight, and seemed to be a terrible waste, but it could not be helped. As she sank I could not help thinking that every day we lost from two to three as fine, or finer, ships, and with each of them several splendid men. It was a most depressing thought.

Things were rather congested in the little " Q " ship. Altogether there were nearly 60 men on board, and food was rather short, but there was just enough.

The captain thought his ship was a good deal faster than the " Tayne " and asked permission to go on as he was short of food. This was granted and he gave his engineers orders to " rattle her along," but to his surprise by the evening he was some way astern, and he never caught up. We heard when we got in that while he had only said " rattle her along," the officers in the " Tayne " had said " A bottle of whisky to the stokers if we get in first." She did.

On the 25th March we were back in Lerwick, and three days later we left for Scapa Flow, where we remained for nearly three weeks. It was a weary time, and the news from the front was not encouraging. The German offensive was in full swing, and our men were being forced back. Days grew into weeks, and

still no orders came nor could the C.O. find out why we were kept hanging about in that way. It was only his influence that saved us all from becoming covered with blue mould. Of course we were not idle. There is always work to be done in a ship, and the hands were landed whenever possible for football and exercise, but it seemed unsatisfactory to be lying there at a buoy while submarines were about sinking ships, and the crisis of the war had arrived. One longed to go out, and do something.

On the 17th March orders came at last to sail at dawn next morning, and to make a cruise round the north of the Orkneys, and to the west past North Rona, Sulister, and Flannan Islands, and St. Kilda, looking for submarines. As happened very frequently when we put to sea bad weather came on. I overheard one of the men muttering that there must be a "Jonas" on board. Though he got that name wrong he was very well up in the Scriptures, and when the C.O. was reading prayers on Sunday he used to repeat them in a semi-audible voice without using a book. His knowledge filled his shipmates with awe and astonishment, and rather unnerved the C.O.

Luckily the weather soon improved, and the last part of the trip was fine.

On the 21st March soon after midnight we were approaching Mull Head on the way back to port. So far nothing had been seen. It was a beautiful, still, moonlight night, and we were jogging along quite happily. At 3.45 a.m. the messenger went round to call the other watch. Five minutes later an extremely violent explosion took place apparently right under the ship. She seemed to lift into the air, and the thought flashed through my mind "They have got us." But she still steamed on. Men poured from all the hatch-

ways, ready to swim for it or fight whichever might be required. The C.O. dashed on to the bridge with remnants of sleep still about him. " Who is firing star-shells ? " " No one, sir. " " What is that, then ? " " That is Venus, sir. " " Ah, so it is. What has happened ? " " A torpedo has exploded right close to the ship, but I have not seen any signs of a submarine. " The hands remained grouped about the deck waiting for orders, but nothing more happened, and nothing was seen, and they were dismissed. The marine told me afterwards that when the explosion took place there was a " proper panic " below, and that he so far yielded to it as to pull on his trousers so as to be in a condition to tackle any emergency, but as he heard that the " Bridge " had not given any orders and appeared calm, he pulled them off again and turned in once more. It was a mysterious affair, but the explanation came later when a " U " boat surrendered to a small patrol off the west coast. This submarine on leaving Germany proceeded round the north of the Orkneys on its way to the westward. When off Mull Head it sighted our ship, and, as the night was quiet and moonlight and favourable for an attack, it intercepted us and fired a torpedo. This duly exploded but the commander of the " U " boat was mortified to observe that it had not done us any harm. He expected to see us blown to bits, but instead he saw us steam on as if nothing had happened. He came to the conclusion that the torpedo had struck some submerged wreck, or, as he thought more likely, had taken a downward sheer and had struck the bottom. That is no doubt what happened. The explosion shook things up in the engine room, but the ship was not otherwise damaged. The further career of this submarine is rather interesting. After

failing to destroy us it went on to the westward and on six different occasions attacked ships, and missed them all. One dawn it was surprised by a patrol and did a crash dive. In the hurry one of the hatches was not properly closed and when at a certain depth below the surface water began to get in. Thereupon the submarine commander had all tanks blown and came to the surface and surrendered. From all accounts he need not have done so as he could have steamed off with its surface motors, but the commander was rattled, and threw his hand in.

A few days later we were back in Scapa Flow just in time for a severe panic which set in one afternoon. At that date there were no warships present. All the battleships, cruisers, and T.B.D.'s had been gone for some days, and the Flow itself was quite deserted, though the store ships were still in Gutter Sound and Long Hope. We were lying alongside the "Cyclops," having some engine room defects seen to, when the order came for all ships to raise steam immediately, and prepare to slip. The ammunition ships were sent away, and told to hide in some corner and every preparation was made for a bombardment. All available marines were landed to repel an invasion, and the authorities evidently took a very serious view of the position. What it was all about we never heard for certain, but the rumour was that Scapa was about to be bombarded. As it happened, a thick fog came on that night. Perhaps that saved us, as after a time "ordinary routine" was proclaimed.

For some time after that we went out for short cruises of a few days each, but saw nothing of particular interest. On returning we filled up with coal and water, and went out again. The officer who saw to the watering of ships, a Lieutenant R.N.V.R., was a

King's Counsel in peace-time. He was as keen as mustard, and managed his department most efficiently. In his spare time, when not arranging to water ships, he occupied himself in shovelling coal into bags !

On the 2nd May while out steaming along a W/T signal ordered us to proceed immediately to Muckle Flugga, the extreme north point of the Shetlands, to intercept a damaged enemy submarine which would be passing that way between 6 p.m. that evening and 3 p.m. the next afternoon. The signal added that three trawlers were being sent to assist. In due course we arrived off Muckle Flugga and found the trawlers already there. One of them was armed, we noticed, with a 6 pdr., which seemed to argue a cheerful optimism on the part of the people on shore. It is asking rather a lot of a trawler with a speed of at most ten knots, and a 6 pdr. gun, to destroy a submarine with a speed on the surface of 18 knots, and a 5.9" gun. The other two trawlers had 12 pdr. guns. We conferred with the senior ship, and learned that their orders were to keep to the south and east of Muckle Flugga. Apparently they had not been told how far they should keep to the east, which was rather an important point. We could not, of course, revise the orders, and so merely told the S.O. of the trawlers that we would keep on the west side. The atmosphere in those high latitudes is wonderfully clear, and as we passed the north end of the Island we could plainly see the smoke made by a steamer, whose masts and funnels were well below the horizon, and the ship itself probably 20 miles away, or more. All that night and the next day until 3 p.m. we steamed about, sometimes close inshore and at others several miles out, but saw no signs of any submarine. At 3 p.m. we returned to port. They were surprised there that we had not seen

the " U " boat, as there was every reason for thinking it had passed, but when it came out that the damage it had sustained prevented it from diving it was not perhaps so wonderful. Handicapped in that way it would hardly come within 40 or 50 miles of the land, though the authorities with a touching child-like simplicity seemed to have expected that it would pass close inshore. Had three or four fast destroyers been sent they would almost certainly have accounted for it, but there may have been some reason why four ten knot ships, one of them armed with a 6 pdr., were considered more suitable for the job.

We had arrived at 8 p.m. that night, and at 2 a.m. next morning we were under way once more, without having filled up with stores, as a ship had been torpedoed north of Dennis Head—at the north end of the Orkneys—and our orders were to find her, and if possible tow her in. At 9 a.m. we were on the spot given, but no traces of any ship were to be seen. At 10 a.m. a W/T message was intercepted to say that the trawler " Kodama " was chasing a submarine, which was heading west, in a position 50 miles west of where we were.

Some time afterwards we came across a sloop zig-zagging along, and in reply to our signals she told us that the torpedoed ship had sunk at 10 a.m., and that the survivors had been picked up. The sloop was very restless, and would not slow up for a second. She did not mean to give the submarine, should it be still in the neighbourhood, a chance of torpedoing her, and so circled round us at 15 knots in great zig-zags while giving us this information. Some days later when we were back in port we learned that the ship lost had been a sloop, and that over twenty men had been killed. It was also reported that the submarine came

to the surface among the boats containing the survivors to find out the ship's name. The commander asked if a W/T signal had been sent in announcing the disaster, and on learning that the explosion had destroyed the wireless gear he had his own W/T masts erected, and made the signal himself, and then housed his masts and went off.

As the ship had sunk we then returned towards our port, but before reaching it received a W/T signal at 2 p.m. instructing us to co-operate with the trawler " Kodama " in chasing her submarine. As the " Kodama's " signal had been made four hours previously, and as she was then 50 miles away and getting further every minute it seemed that our co-operation would not be of much use. However, " Obey orders if you break owners," and we started off. If all went well we hoped to be on the spot where the " Kodama " had been, when she sent off her signal, by midnight. The submarine then would probably be about 200 miles away.

As we steamed along our W/T operator intercepted a signal addressed to the " Kodama," ordering her to make for a position 100 miles to the eastward! No signal was sent to us, and as we were proceeding to the westward to co-operate with a ship proceeding to the eastward the position appeared to be getting rather involved. The C.O. decided to try and intercept the " Kodama " on her way to the new position, and find out what it was all about. Before long something was sighted on the starboard bow, a small black lump which broke the clean-cut line of the horizon. It looked remarkably like a conning tower, and in a very few moments it became evident that that was what it was. We continued on our course as if we had not seen anything, and since the submarine was coming

towards us the two ships were soon within 6 miles of each other. Still we stood on. In three or four minutes we should be within range. The C.O. intended to behave as if we knew that we were quite helpless, and that it was no use running away. The submarine, however, was on its way home, and seemed anxious to get there as soon as possible, and presently it altered course to the north and steamed off at about 18 knots, leaving us severely alone. That was, it always seemed to me, the weak point of the "Q" ships. The decision of whether to attack or not was left to the submarine. It was inevitable that this should be so, and it was quite recognized by the authorities, but it always roused in me a feeling of resentment. It did not seem right somehow, and, as I watched the conning tower getting smaller and smaller as the submarine went off, I reflected with satisfaction that my application for the command of one of the hydrophone trawlers had been approved, and that my appointment might come along at any moment.

As it was hopeless to throw off the mask and follow the submarine, which could steam nearly two feet to our one, we merely sent out a W/T signal that an enemy submarine steaming north was on the surface in such and such a position. After the conning tower had finally disappeared over the horizon we turned east to try and cut it off in case it attempted to circle round and make the Fair Island Channel. Half an hour later more orders came in by W/T instructing us to proceed to a position off Mull Head and work with a group of six trawlers operating off that headland. The people on shore seemed to be playing some form of chess, but it was the final spurt as far as I was concerned, as next time we were in port my appointment came to H.M.S. "Victory" for a commanding

officer's hydrophone course. A few days later my relief, a Lieutenant, R.N.R., arrived, and I left for Portsmouth on the 12th May, '18.

The "Tayne" went to the White Sea soon afterwards, and did a lot of useful work there, including salving a steamer, but she was not again in action. She returned after the Armistice, and the crew were paid off, but the ship has been retained by the Admiralty as a store ship.

CHAPTER VI

HYDROPHONE TRAWLERS

BY the end of the month I had done the course, and had passed out, and on the 1st June I joined at Yarmouth the trawler "John Appleby," to which I had been appointed. She was a new ship, launched in 1917, and belonged to the largest class of trawlers, known as the "Mersey" class. She was named, as were most of the trawlers built by the Admiralty during the war, after warrant officers and men recorded in the log of H.M.S. "Victory" as being present at the battle of Trafalgar, a happy inspiration on the part of some one.

The hydrophones with which the trawlers were fitted were usually called the "fish" hydrophone. They were the invention of Mr. Nash, and consisted of a torpedo-shaped body about 8 feet long attached to an electric cable by which it was towed. Inside the body was a watertight cylinder containing two microphones set at right angles to each other. The electric towing cable was wound on to a winch on the trawlers' counter, from which wires were taken to the listening cabinet behind the wheelhouse. This cabinet was fitted with a multiplicity of switches, indicators, and other electrical gear, and was in telephonic communication with the upper bridge, where there was also a compass card indicator. A fairly large installation of accumulators was carried for supplying the current.

These could be charged up when necessary by a dynamo in the engine room. Each trawler carried a Hydrophone Officer, a Lieutenant or Sub-Lieutenant, R.N.V.R., or a Midshipman R.N.R. or R.N.V.R. They had all gone through a special course, and were in charge of all the electrical and hydrophone gear on board, and they also did the listening when the hydrophone was out. The first thing to do when a trawler was out hunting was to get the hydrophone over the side. As soon as this was done and he had seen it towing properly with sufficient cable veered, usually from 40 to 50 fathoms, though this depended on the depth of the water, the H.O. went to the listening cabinet, and telephoned to the bridge that he was ready. At irregular intervals of anything from 10 to 30 minutes the C.O. would then have the ship stopped. As soon as the ship's engines came to rest listening would begin, and continue as long as the hydrophone was towing. When the ship's way was almost lost the engines would be started again and listening would stop, to start again twenty minutes later, perhaps, when the ship once more stopped her engines. The reason, of course, that the ship's engines had to be stopped while the listening was on was that if they were running the noise in the hydrophone would be so great that the listener would not be able to hear anything else. While they were silent, however, it was possible to hear the engines of any other craft, submarine or surface, it did not matter which, seven miles off in moderate weather, but not more than perhaps two if the sea were rough. Not only could the listener hear that engines were moving in the neighbourhood, but he could also tell the exact direction of the sound. The arrangement of the two microphones in the body of the hydrophone made this

possible. They were set at right angles to each other, and by using one at a time, and cutting the other one out, it was possible to find not only the line of direction of the sound but also whether it was ahead or astern, on one side or the other.

One of the worst features was that the instrument was very delicate, and liable to get out of order. To get over this to some extent each trawler carried two hydrophones, so that if one was out of order the other one could be used. This "fish" was a long way in advance of anything of its kind, but it was not perfect. Had it been possible to devote more time to experimenting with it no doubt a very much improved instrument would have resulted, but the position being almost desperate no delay was possible, and it was taken up as it was, and fitted to ships as fast as it could be turned out.

As it happened, fitting out was an extremely slow affair. Great delays in the supply of parts took place, and it was August before we were ready to leave Yarmouth. Even then we were not properly fitted out, and more delay occurred at Portland where we went for the final touches.

While I was waiting for gear at Yarmouth I met E. Cadbury, who had started the war as an A.B. in the "Zarefah," but who was now a Captain in the R.A.F. He knew that I had had a smash up with an aeroplane in May, '15, and very kindly offered to take me up for a short flight. Of course I jumped at the chance to wipe out my previous experience—3 minutes in an aeroplane and 6 weeks in hospital—the memory of which had always rankled a bit, and we went up the same afternoon for 25 minutes. It was a most delightful trip. Unfortunately the weather was not very clear, and we could not see the French

coast, which can be done from there if the conditions are right, but all the same it was a fine experience.

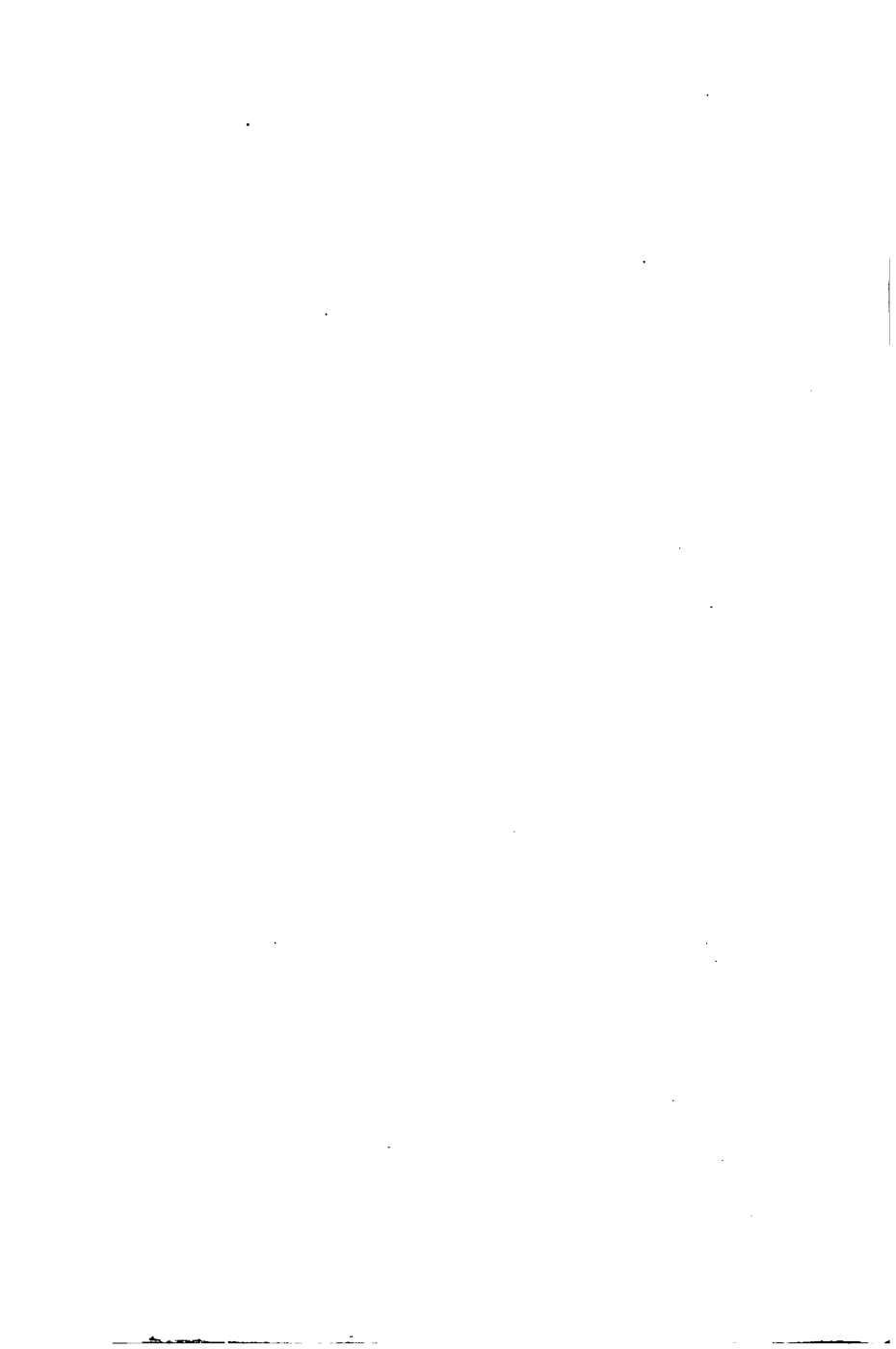
On the 5th August four Zeppelins came across, and made the land to the north of Yarmouth. They arrived in the evening, but instead of going out to sea again until it got dark they were sufficiently ill advised to go on. All the aeroplanes in the district concentrated on them, and one if not two were brought down in flames, and the others driven off damaged. For the second time Captain Cadbury took a prominent part in bringing one of them down, and he was awarded the D.F.C., having previously received the D.S.C.

On the 9th August we left Yarmouth for Portland, which was the "finishing" port. There were a number of trawlers waiting to be completed when we got there, and we were a long way down the list. Still it was satisfactory to have got as far as the finishing port, and, moreover, we did not actually waste time there as we, and some of the others, were sent out on ordinary patrol while waiting our turn. This was rather an advantage as it gave my crew an opportunity of shaking down before we started hunting. Quite a large proportion of the men had never been to sea in their lives, and at first when it was rough more than half of them were quite helpless. On one rough patrol there were ten effectives out of a total of 22. This was the complement of a hydrophone trawler and it was a large number of men, but the ships had been specially arranged to take that number, and the accommodation was good. As a rule, however, the feeding was bad, not as regards the equality of the food but in respect to the cooking. The cook in many of these trawlers was what was known as a "boy cook," a lad of under 18 who had been put through a three weeks' course of cooking. My first boy cook

was a perfect limb of Satan, and he was taken out and another one drafted into the ship. The new cook only lasted one day, and then he went into hospital for an operation. Ultimately another one arrived, an Irish lad, a very nice boy, but without the slightest idea of cooking. We suffered severely at his hands for a time, and then one of the deckhands offered to cook while we were in port, and after that things improved, without ever reaching a very high standard. For one thing all our provisions came from the Naval stores, and as they do not go in for much variety there for six months I dined daily on tough beef, dried peas and potatoes. Moreover, it was difficult to supplement the rations on account of the food restrictions on shore, and the only thing was to persuade oneself that as long as there was sufficient food refinement in connection with it was a secondary affair. Moreover, the deck boy, who was supposed to look after my comfort was slow in learning what was required, though he was willing and I believe did his best. Altogether it was rather an uncomfortable time, but the fact that I was in an attacking organization drawn up on scientific lines outweighed all disadvantages, and I was well content to be there. And after all things were not so bad, and I had a very efficient, reliable and willing crew. The Hydrophone Officer Midshipman F. A. James, R.N.V.R., was all that could be desired as a companion. He was very young, 19 years old, and as keen as mustard. On leaving school he joined the Air Service and passed as a pilot when he was 18, but soon afterwards had a smash and fractured his skull, and was not allowed to fly again. On recovering he joined the R.N.V.R., and then volunteered for the Hydrophone Service, and was appointed to the "John Appleby."



H.M. TRAWLER "JOHN APPLEBY"



On the 26th September our purgatory came to an end. All the gear had been tested and passed, and we were ordered to proceed to Falmouth, and report to the parent ship, H.M.S. "Venerable," for service with the Southern Patrol Force. For nearly three months we had been hanging about waiting for gear, a condition of affairs which had almost driven me distracted, as there is nothing that I dislike more than hanging about in port. At sea everything goes like a piece of well oiled machinery. Every one knows his work and how and when to do it, and there is no trouble, but as soon as one arrives in harbour every kind of annoyance starts. Captain W—— once said as we were on the point of entering harbour after nine days mine-sweeping near the Dogger Bank, "And now we return from the quiet and peace of the North Sea to troubles on shore," and there was a lot of truth in the remark.

Three other trawlers had also been passed and were going to Falmouth to join up, and we all left at 5 a.m., and got in after dark the same day. Next day the two "Castle" class trawlers, "Thomas Booth," and "Charles Donelly," and the "John Appleby" were formed into a Division, the XIVth.

Lieut. W—— D.S.C., R.N., in the "Thomas Booth" was the S.O. of the division. He had served in submarines on the Belgian coast, and in the Baltic where he had earned a Russian decoration as well as the D.S.C., and was therefore particularly well fitted for anti-submarine work, as he knew exactly how the submarine commanders would look at things, and what they might be expected to do. He was capable, considerate, and sound in his views, and we were lucky to have him as S.O.

As soon as the Division was formed it was sent out

to practise with one of the " L " class submarines, after a Commander R.N. had given the C.O.'s brief instructions on the general method to be adopted. He always went out to superintend the exercise on board the senior ship.

Hydrophone trawlers hunted in Divisions of three ships, spread out in line abreast with the senior ship in the middle. They kept within signalling distance, and one of the three always had its hydrophone out, and conducted affairs to the extent of giving the stopping and restarting signals. On the signal to stop—the hauling down of a black ball—all three ships immediately stopped their engines, and the Hydrophone Officer in the ship which had its " Fish " out listened on the instrument. If he could not hear anything the black ball was hoisted again, and the ships went on, but if he could hear the turbine engine of a " U " boat a large black flag was at once hoisted to indicate " submarine heard " and a compass signal was also hoisted to give the direction of the sound. Thereupon the ship on the other beam got its hydrophone over, and next time the ships stopped the two outside ships were both able to signal the direction of the sound. As they were anything up to 4 miles apart, they naturally heard it in different directions, and this gave the S.O. a very good idea of where the submarine was, since he knew the distance the two ships on his beams were apart, and he also knew the direction in which each heard the sound. He plotted this information on the chart in the form of a triangle, with the distance separating the two listening ships as the base, and the bearings of the sound as the two sides. Where these two lines cut each other was the position of the " U " boat. The next stop would give fresh bearings, and when



GETTING THE HYDROPHONE OVER THE SIDE



THE CAGE USED FOR HOISTING AND LOWERING THE HYDROPHONE



these were also plotted they would reveal the position it had then reached. By comparing the two positions, it was possible to see the course and speed of the quarry, and decide what tactics to adopt to cut it off. It was very important to keep it right ahead of the S.O.'s ship, as when in that position the bearings signalled by the two flanking ships gave a good "cut." If, however, the "U" boat managed to work to one side, the three ships, in order to get nearer, had to turn towards it, and to alter from line abreast to line ahead, when, of course, the base line disappeared, and it was impossible to fix the position of the "U" boat. The submarine commanders were quick to adopt tactics to meet the new danger. If they found themselves being hunted they endeavoured to stop their engines at the same time as the trawlers stopped theirs, and so baffle the listeners. If that failed they would sink to the bottom and lie there stopped, if the depth of the water and nature of the bottom permitted; or make for the coast so that the noise of their engines should be drowned by the sound of the waves breaking on the shore, or if a convoy were passing make for it, and escape in the noise of its propellers. If it had been possible to fit the hydrophone to faster ships than trawlers, it would have increased its efficiency. Trawlers were too slow. On the surface the submarine could steam nearly twice as fast as they could, and even submerged it could equal them in speed for two or three hours. Moreover, if the submarine managed to get on the beam, so as to bring the trawlers into line ahead, they could never steam fast enough to open out into line abreast, unless the leading trawlers slowed, which, of course, they could not afford to do, for fear of losing the submarine altogether,

After a few days' practice with the "L" boat we were pronounced ready for work, and left one very rough morning. The area allotted to our Division was a triangle running from a position north of the Scillies to another one north of the Cornish coast, and our routine was to be five days at sea, and three days in harbour. Round by the Scillies and Land's End is rather a rough part in bad weather, and on our first patrol there was too much sea to get the hydrophones over until the afternoon of the third day.

Lieut. W—— then asked me if I thought I could get mine over without damaging it, and this we succeeded in doing. He told me to take charge of the operations and say what courses I should be steering during the night. At dark the other two ships closed in and kept one on each quarter. That was the night cruising formation. At night stopping and starting signals were made with a flashing lamp, as the black ball could not, of course, be seen. It was most fascinating to watch the hand on the indicator card on the bridge move round as James in the cabinet altered, by means of his controls, the position of the microphones in the "fish." As soon as the engines stopped, I switched on the tiny electric light which illuminated the dial, and watched the pointer begin to move from point to point. At times it would pause, and I held my breath. Then it would move on perhaps, and go back and pause again. James evidently thought he could hear something on that line. After a time, however, the hand moved on and completed the circle, passing slowly from point to point. Then the telephone bell signalled "Nothing." The signalman was waiting with his lamp, and at the word made a 3 second flash to each of the trawlers on the



THE FISH HYDROPHONE IN ITS CAGE READY FOR LOWERING INTO THE WATER



THE "FISH" HYDROPHONE RECEIVES EXPERT ATTENTION

quarters to signify "Proceed," while I spoke down the voice pipe to the wheelhouse "Go ahead." The skipper or mate, whoever was on watch, telegraphed to the engine room, and we went on again.

Two false alarms occurred during that patrol, the first when the "Charles Donelly" detected the sound of a turbine engine ahead, which proved to have been caused by a T.B.D. hidden in the mist, and the second when the "Thomas Booth" heard the engines of a Division of trawlers coming out to relieve us one night.

Our three days' "stand off" in harbour were not idle ones by any means. One of them had to be devoted to getting coal and water, and on the others stores had to be drawn, and defects made good. After that the hands had not much to do beyond keeping the ship clean, but the C.O. had a lot of papers to fill in, and piles of orders to go through, and on one of the three days he was duty officer and was not allowed to leave the ship. As a matter of fact, I never did go on shore, or at least went very seldom, as the "Venerable" lay up the river in St. Just's Pool, three miles from the town, and getting on shore and back again was an awkward affair. It is true that picketboats and drifters ran at stated times from the "Venerable" to take officers and men to and fro, but that was only part of the business, as one had to get from the parent ship to one's own vessel, and that meant keeping a boat's crew of four men to fetch one. As the weather was mostly rough I did not care to have a small boat knocking about in the dark, to say nothing of keeping the men out of their bunks for hours, and so seldom went on shore. The liberty men always spent the night on shore, and came off first thing next morning.

Our orders were altered next time we went out and instead of hunting in the area given we were told to

meet convoys at the Longships Lighthouse, off the Land's End, and escort them to Lundy Island in the Bristol Channel. A south going convoy was to be met thereabouts and taken down to the Longships. At dark we were to leave it and hunt in the original area.

On sighting the convoy in the morning we took up a position 8 miles on the bow, far enough off to enable the hydrophones to be used without fear of interference from the engines of the ships in the convoy. These convoys were usually very well guarded by T.B.D.'s, sloops, "P" boats, trawlers, and aircraft, while divisions of hydrophone trawlers steamed on the bow and beam.

I know nothing of strategy, or what the objections to that course may have been, but I could not help wondering whether it would not have been better to have concentrated our energies on preventing submarines from coming out rather than letting them out, and then chasing them about. There must have been thousands of patrols of one sort and another round our coasts, out in the Atlantic, in the Bay of Biscay, and in the Mediterranean, to say nothing of aircraft, all of them using up fuel, and employing a large number of men. It is, perhaps, presumptuous on my part to express an opinion, but from the early days of the war I had felt that we were on the wrong tack, and that our patrols ought to have been on the enemy's coast, behind minefields systematically laid and renewed. Attempts to sweep these up by the enemy might easily have led sooner or later to a Fleet action, which was the very thing we wanted. Stationary hydrophones resting on the bottom might have been employed just outside territorial waters on neutral coasts, watched by our submarines or trawlers,

However, it is no use labouring the point. For some, no doubt, very good reasons instead of stopping up the wasp's nest in our garden we chased the wasps about, over one thousand people chasing about forty wasps.

One night we were ambling along to the westward. I had gone to lie down for a rest, after 20 hours on the bridge, when a signal was flashed from the S.O., "Close the 'Donelly' at full speed." We obeyed, wondering what it was all about. The lamp started winking again. "There is an enemy submarine off the Longships." In three hours we were in the neighbourhood, and could hear turbine engines. Our hopes rose as the sound got louder and louder. Presently three shadowy shapes appeared ahead, lying low in the water. We foamed along at full speed. They could hardly get away, but strangely enough they did not seem to be trying to do so. Were they submarines? No, American submarine chasers! "Course north" signalled the S.O. in disgust, and we pushed off to get clear of the sound of their engines.

At dark that night we left the convoy south of Lundy Island and headed west. Our hydrophone was out, but I lay down for a couple of hours at 11 p.m. as I had had very little sleep the previous night, and left the skipper to conduct affairs. The first alteration of course was due at 1 a.m., and the second one at 3 a.m., and I turned out for these, though it was not necessary as the skipper, or the mate, could have done all that was required. Soon after 5 a.m. I was called, as James could hear a submarine's engines on the hydrophone. He reported that he had thought that he could hear it at the last two stops, but was now quite certain. I had a signal made to the other two trawlers that I could hear a "U" boat, and went after it at full speed. Twice we stopped for a minute, and

each time the engines could be plainly heard. From the bearings of the sound it appeared that the submarine was crossing from port to starboard. Again we stopped, and this time there was not a sound. It was then getting light, and the submarine must have seen us, and gone to the bottom with engines stopped. I steamed on for two miles, which I estimated would bring us over the spot, and then stopped, and waited for the others to join. The submarine was almost certainly within a few hundred yards, lying on the bottom, or allowing the tide to bump it gently along in the hope of getting clear in that way. What was the best thing to do? The S.O. decided to send the "Donelly" and us to the east, while he remained stopped and listened on the S.C. tube. Perhaps the submarine on hearing us steam off would think that we had all gone, and would start his engines, in which case the S.O. would hear him. The S.C. tube, it may be well to explain, was an American invention, and consisted of a brass stem fitted with two rubber spheres. This stem was contained in a tube fixed to the skin of the ship, and when not in action was drawn up. When in action it was lowered down, and the operator listened through ear-pieces. The stem could be rotated, and the increased volume of the sound as it moved round indicated the direction of the source. It was quite good for short distances, about 1000 to 1500 yards, but it could only be used when the ship was stopped and had no way.

We went east for an hour, stopping at intervals and then turned and went west for another hour, but could not hear anything beyond the engines of a convoy which came past. Neither did the S.O. hear anything, and after hanging about for some hours we concluded that the submarine had taken advantage

of the noise made by the convoy to get away. A N.W. direction seemed a likely one for it to take, and we went off N.W. Some hours later we came across a number of bodies floating about in lifebelts. The surface of the sea was strewn with them. The S.O. gave orders for us each to pick up a few, and search them for papers. It was not a very pleasant job, nor an easy one. They all floated head and feet down with the lifebelts just showing above the water, and it was a difficult matter to get hold of them. The best way was found to be to pass the loop of a rope under the body, and haul it up with that. The first one was that of a Chinaman. In the pockets of his dungarees were a pocketbook, a knife, a watch, and a few poor trifles. The second had no papers, and only two or three small silver coins, and a ring without a stone, but the third had a passport and nearly £115 in gold and notes and drafts for 1000 dollars. After searching them we tied old firebars to them, took off the lifebelts, and returned them to the sea. From the papers found on one of them it appeared that they came from one of the Japanese "Māru" boats. One had been torpedoed in the St. George's Channel about a fortnight previously with a very heavy loss of life. The bodies we saw all seemed to have died in the sea of exposure.

On our return to Falmouth I handed the money and trinkets found to the "Venerable" to be sent to the Chinese Legation.

In the third week in October a strange thing happened. All the German submarines were called home. Some *coup* was evidently to be attempted, and as there was nothing for the Southern Patrol Force to do at the entrance to the Channel, when the "U" boats had gone back, it was ordered to the Firth of Forth

to be ready for operations in the North Sea. The stroke would be delivered there if anywhere, and it was rumoured that a sortie was to be made by the German High Seas Fleet, preceded by a barrage of all their submarines. Presumably the plan was for the German Fleet to retire when our Fleet approached, and endeavour to draw our ships into the barrage of submarines. It was said that affairs on land were desperate from the German point of view, and that the gamblers at Head Quarters over there had decided on a last throw of the dice at sea, hoping that something would turn up to ease the position on shore, and postpone the end. So it was rumoured, but the dice were never thrown, as the stokers of the High Sea Fleet refused to raise steam when the order came to prepare for sea.

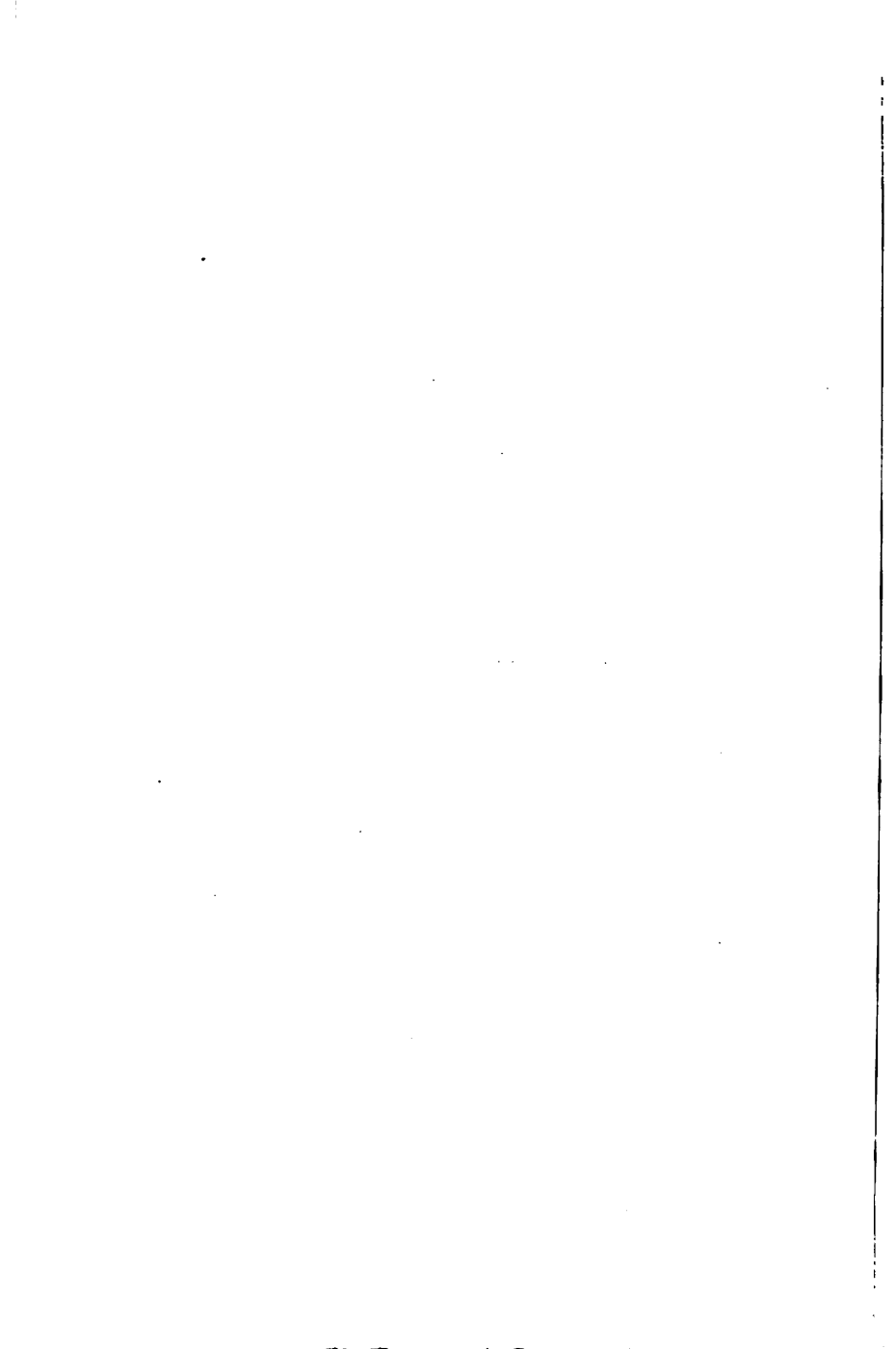
I was on leave when it was decided to send the S.P.F. north, and was recalled to take my ship up. Most of the trawlers had already left when I got back, and the XIVth Division was the last one to get away. Three drifters were to go with us, one of which had only half a propeller, and could not steam faster than 5 knots. Lieut. W—, of the "Thomas Booth," was Senior Officer of the flotilla, and he arranged that we should each tow one of the drifters when the weather permitted this to be done. The run up the coast was uneventful except that one of the drifters—the one I was looking after—was in collision off Beachy Head. I had been towing her all day, but cast her off just before we got there as it was then dark, and there was too much traffic for towing at night. A mile west of Beachy Head a cargo steamer and a T.B. escort overtook us. The former cut across my bows, while the escorting vessel passed under my stern. This was hardly justifiable, and had unfortunate results, as it



THE SKIPPER AND PORT WATCH



THE MATE AND STARBOARD WATCH



compelled the drifter to alter its helm and turn to starboard. At that moment a green light appeared on my starboard bow, and a large steamer passed quite close. The T.B. masked the sight of this steamer from the drifter, and when the latter returned to its old course as the T.B. drew clear it suddenly saw the steamer right on top of it. A collision was inevitable. There was a crash, and confused shouting. We turned and made for the drifter, and learned that her bows had been smashed in, but that no one was hurt. She said that she could steam, and I told her to proceed to Newhaven where I would follow her after I had signalled the "Booth." The latter had, however, gone on in ignorance that anything was wrong, and I could not get into touch with her, and so followed the drifter as I did not want to be too far away in case she sank. When two miles from the harbour she suddenly started hooting on her whistle and firing red Véry lights. We closed her at full speed, and hooted to encourage her. Still she went on hooting her despair and keeping up a continuous fire of lights. On reaching the spot and hailing them we heard "I am sinking" in reply, and we told them to get their boat over, and added that we would send our boat as well. In the meantime we had succeeded in getting into touch with Newhaven and asked for a tug as a drifter was sinking, and we also got a wire ready with a view to towing her ourselves by the stern. As we went alongside the tug arrived, and we transferred the crew to her and went off to try and find the "T. Booth," and report the accident. By a piece of luck we found her just the other side of Beachy Head. Though the night was as black as sin she had discovered somehow that some of the ships were missing and had waited. The S.O. decided to anchor there for the

night and to go into Newhaven himself next morning, and find out the position of affairs. He instructed me to take the remains of the flotilla to the Downs at dawn. When we weighed next day one of the drifters came alongside and asked me to be sure and not lose sight of him as he had no charts.

Nothing else of importance occurred on the way up to the Firth of Forth, where we arrived a couple of days later.

We were sent immediately on arrival to fill up with coal and water. It was rumoured that if the German Fleet came out we were to leave at once, and endeavour to locate, and break up, the submarine barrage, and so give our ships freedom of movement. However, the German Fleet did not move, and we remained at anchor. Six days later the Armistice was signed, and I expended two and a half bottles of whisky in standing the hands a tot each by way of celebration.

The 21st November was "Der Tag." The German Fleet steamed into the Firth of Forth surrounded by our ships. A number of the officers of the "Venerable," and C.O.'s of the S.P.F. trawlers, went out in one of the trawlers to see them come in. We had to wait an hour, and then out of the mist came some of our light cruisers, and T.B.D.'s. They were followed by our battleships with the German ships steaming between them. At a signal all anchored. Astern of the big ships came the T.B.D.'s, with the Germans again in the middle. These anchored further down the Firth. Our little flotilla of about a dozen ships filled with spectators, then got under way and steamed through the lines of anchored ships. The first thing that struck one was how very inferior their T.B.D.'s appeared in comparison with ours. They were smaller, not so well armed, less seaworthy, and were



THE PARENT SHIP WITH A FEW OF HER TRAWLERS ALONGSIDE HER



HYDROPHONE TRAWLERS ANCHORED IN DIVISIONS. THEY WERE PAINTED WHITE TO MAKE THEM INCONSPICUOUS AT DUSK AND AT DAWN OR IN BAD LIGHTS



very dirty and neglected in appearance. The next thing that caught the attention, and made a very unpleasant impression, was the attitude of the crews. They stood about in groups quite unabashed and unashamed, and laughed and joked among themselves. It was quite a relief to pass out from between the lines, and note the magnificent appearance presented by our T.B.D.'s anchored around the German ships. Standing boldly up out of the water with their high fo'c'sles, and superimposed guns, they looked twice as seaworthy, and altogether superior to the ships they were guarding. On leaving the T.B.D.'s we made for the lines of battleships. The difference in appearance there was not so marked, and the German ships looked formidable enough. It was difficult to realize that that great fleet had given itself up without striking a single blow. It seemed incredible that it could submit so tamely, but things could not have worked out more satisfactorily from our point of view.

Two days later the "Venerable" hoisted at 9 a.m. "Prepare for sea at noon," and to sea we had to go, though many of the ships were short of water and provisions. The destination was Portland. The weather was thick when we started and remained more or less thick for the whole passage. At times it was impossible to see a couple of ships' lengths ahead, and some of the trawlers lost touch, but all turned up safely in the end. For several days we lay at anchor in Portland, and then orders came to return to store guns, ammunition, depth charges, and the hydrophone gear. In January our division went to Milford Haven to lay up. The officers returned to their depots at once, and the men followed soon afterwards.

Soon after the Armistice had been signed I volunteered for mine-sweeping, and in January was appointed

to the command of a paddle-sweeper. She was at Zeebrugge and after some difficulty I managed to get there. The officer in command had also volunteered and did not want to quit, and I returned to the Admiralty, but was unable to get another ship, as not enough men had volunteered to man all the mine-sweeping vessels available, and more than a quarter of them had to be laid up. After waiting about for some time in the hope that something would turn up, I was demobilized in April, '19.

And so my service fittingly ended in the same subdued neutral light which had characterized it throughout, and my consolation must be that of the thousands of other undistinguished survivors that though we did not achieve great results yet we suffered many things and did our best.

THE END.



